

00036660

FIG. 1

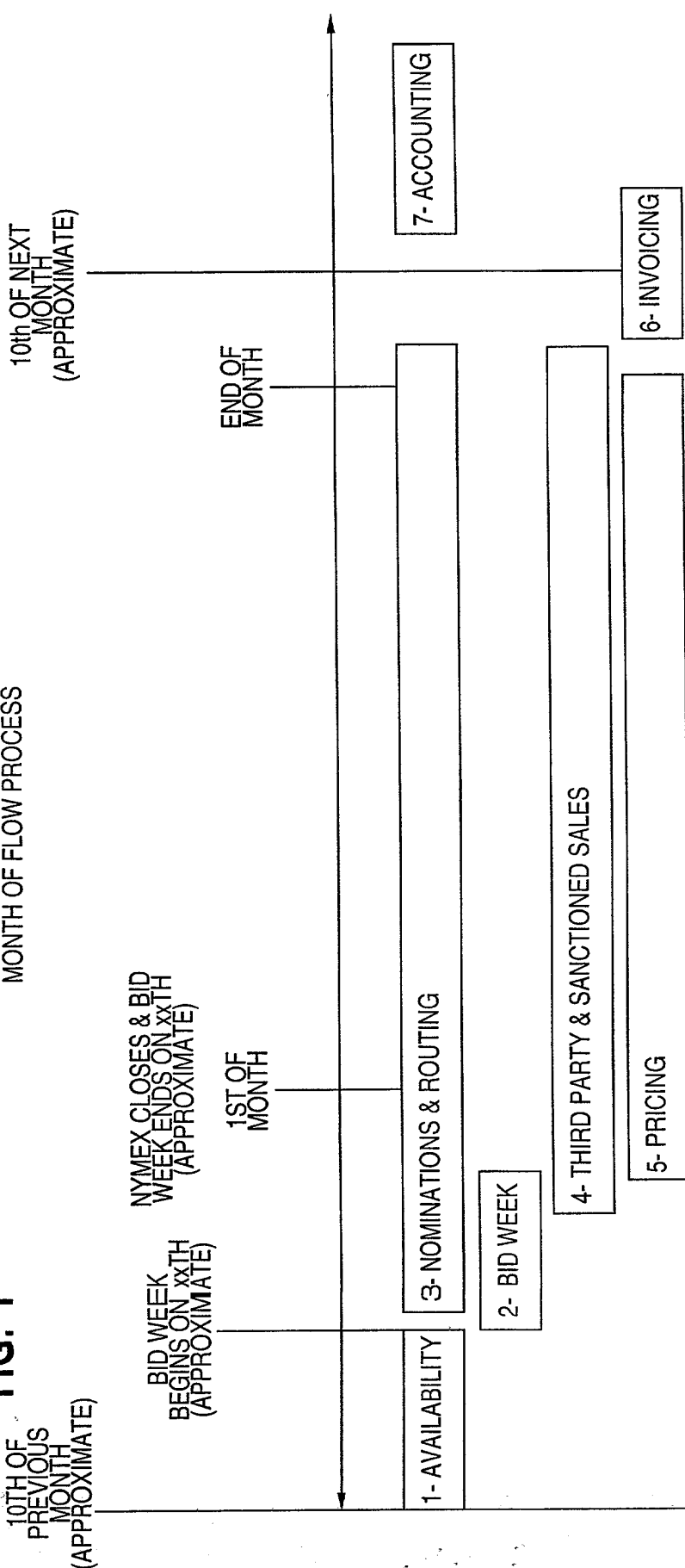


FIG. 2

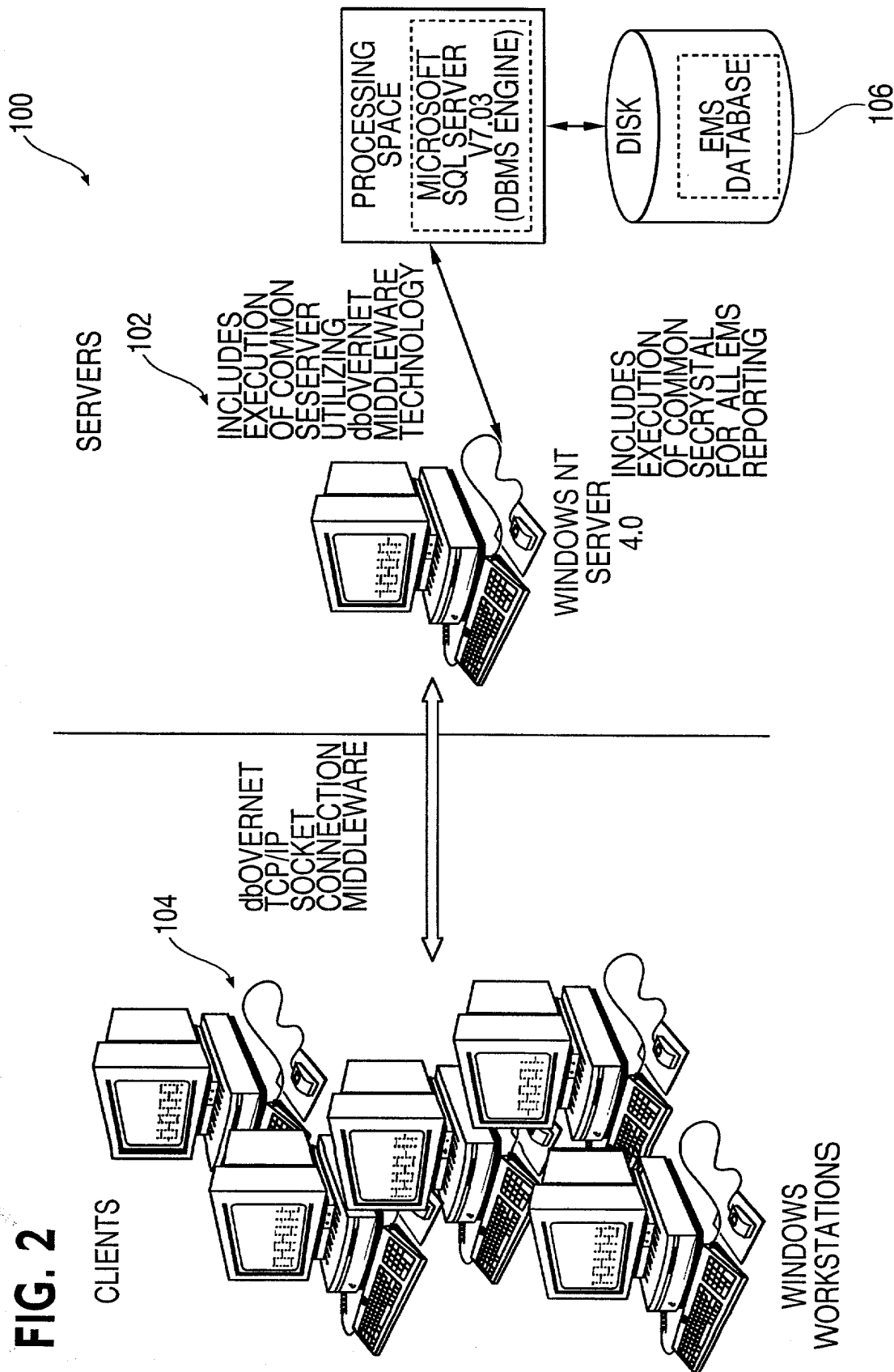
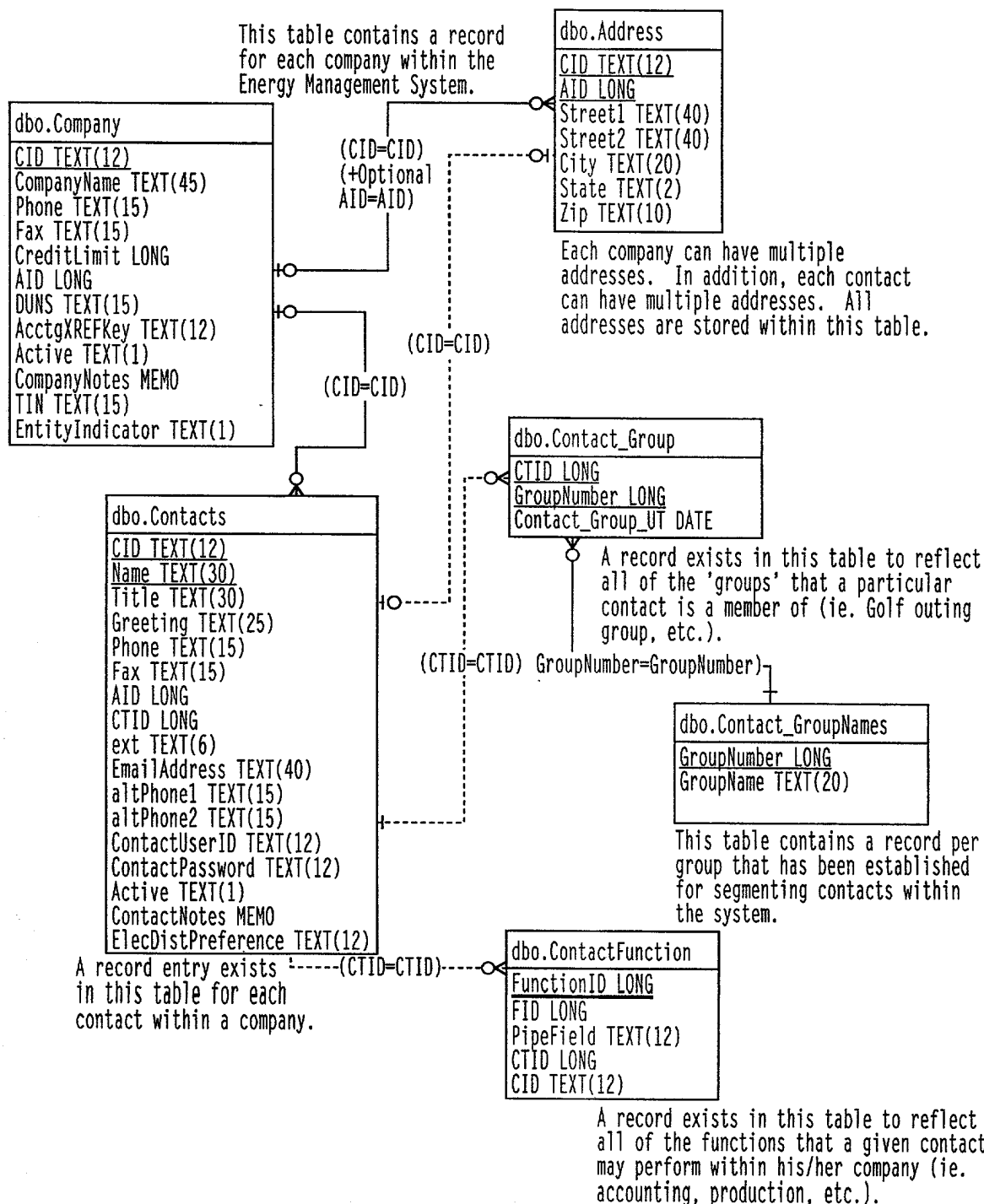


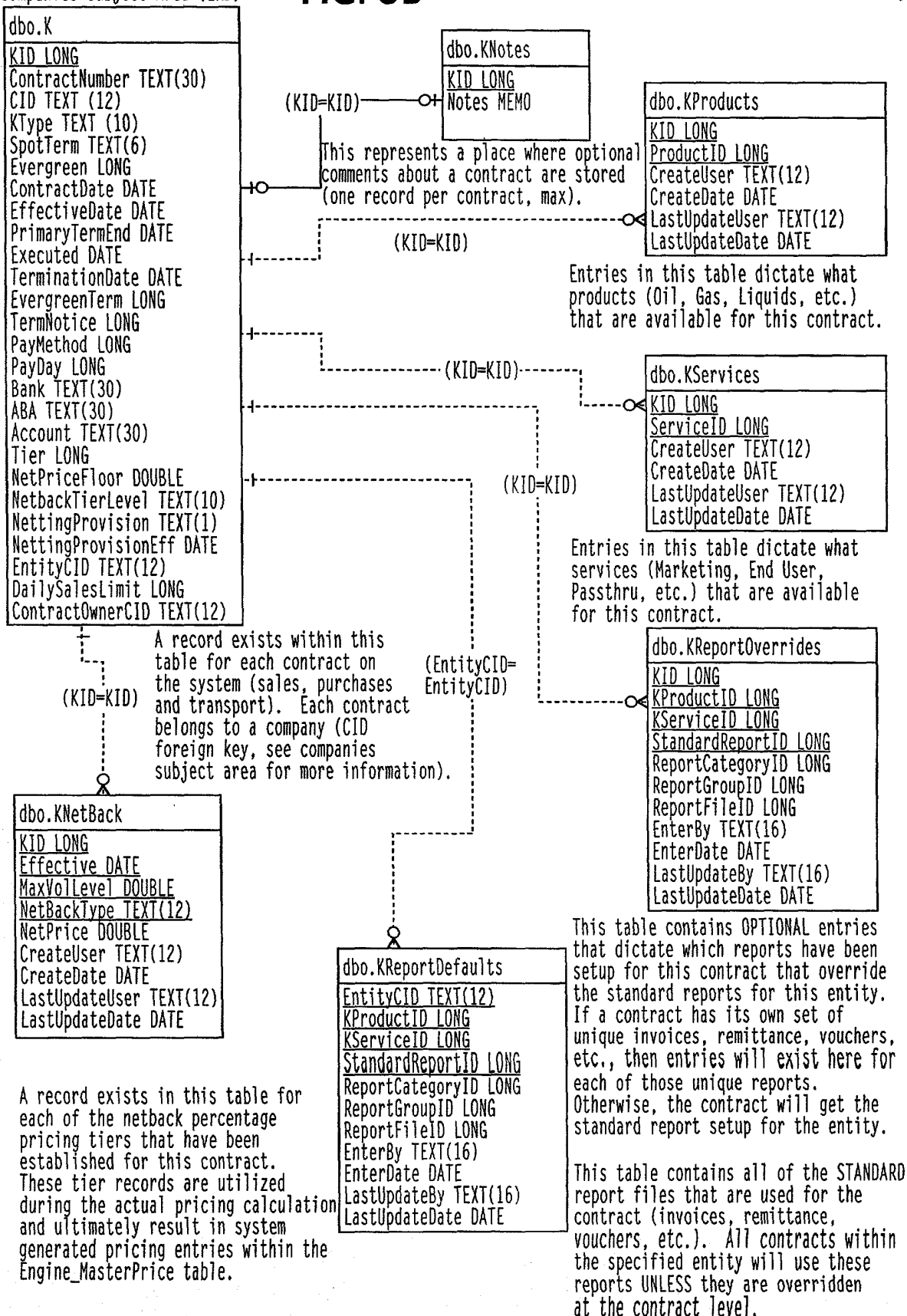
FIG. 3A

Companies Subject Area (ERD)



Companies Subject Area (ERD)

FIG. 3B



200212160056860

FIG. 3C

Deals Subject Area (ERD) (1 of 2)

| dbo.Package |
|--------------------------------------|
| PKG LONG |
| TheirContact LONG |
| OurContact LONG |
| Description TEXT(30) |
| StartDate DATE |
| EndDate DATE |
| Revision LONG |
| Package_Create DATE |
| KID LONG |
| CID TEXT(12) |
| DealTypeCID LONG |
| VolumeVolatilitydcID LONG |
| PricePerioddcID LONG |
| InterruptibledcID LONG |
| PackageDBCR LONG |
| PackageGasMonth DATE |
| SuppressInvoices TEXT(1) |
| AccountingDueDate DATE |
| PackageStatus TEXT(16) |
| Package_CreateBy TEXT(12) |
| LastUpdateBy TEXT(12) |
| LastUpdateDate DATE |
| FinancialPKG LONG |
| KProductID LONG |
| KServiceID LONG |
| RolloverIndicator TEXT(1) |
| RolloverPrevPKG LONG |
| RolloverNextPKG LONG |
| RolloverSetupDate DATE |
| RolloverSetupBy TEXT(12) |
| RolloverVolumes TEXT(1) |
| RolloverPrices TEXT(1) |
| RolloverCosts TEXT(1) |
| VolumeCalculationsSuppressed TEXT(1) |
| FinancialMID LONG |
| FinancialNomAmount DOUBLE |
| FinancialActAmount DOUBLE |
| RolloverVolumePopMethod TEXT(25) |
| RolloverTermDate DATE |
| ParkOrLoan TEXT(1) |

(DealTypeCID, VolumeVolatilitydcID,
 PricePerioddcID, InterruptibledcID)

| dbo.rDealClassRules |
|-----------------------------|
| DealContext LONG |
| DealTypeCID LONG |
| VolumeVolatilitydcID LONG |
| PricePerioddcID LONG |
| InterruptibledcID LONG |
| IncludeInWasp TEXT(10) |
| FBOSourceCode TEXT(12) |
| FBOCID TEXT(12) |
| PhysicalSourceCode TEXT(12) |

This table contains a single record, per deal on the system. The PKG field is sometimes called PID or VolGroup on other tables (Engine_Master, Engine, etc.). Each deal on the system is bound to a given month (ie. a deal never extends beyond a gas month). It can be less than a month in duration (see StartDate and EndDate columns).

| dbo.PackageCorrespondence |
|---|
| PCID LONG |
| CorrespondenceBy TEXT(12) |
| CorrespondenceDate DATE |
| CorrespondenceDirection TEXT(12) |
| CorrespondenceLocationID LONG |
| CorrespondenceFileName TEXT(254) |
| CorrespondenceSysFileName TEXT(254) |
| CorrespondenceFileExtension TEXT(30) |
| CorrespondenceShortDescription TEXT(50) |
| CorrespondenceDescription MEMO |
| CorrespondenceType TEXT(20) |
| CorrespondenceMethod TEXT(12) |
| EnterBy TEXT(12) |
| EnterDate DATE |
| LastUpdateBy TEXT(12) |
| LastUpdateDate DATE |
| CorrespondenceStatus TEXT(20) |
| CorrespondenceReportQueueID LONG |

This table contains references to all standard correspondence (electronic copies of reports) for the deal.

| dbo.PackageCosts |
|--------------------------|
| PCID LONG |
| PKG LONG |
| STID LONG |
| CostLevel TEXT(12) |
| CostMID LONG |
| CostBasis TEXT(40) |
| CostRateOrAmount DOUBLE |
| CreateUser TEXT(16) |
| CreateDate DATE |
| LastUpdateUser TEXT(16) |
| LastUpdateDate DATE |
| CostDescription MEMO |
| CID TEXT(12) |
| ApplyCosts TEXT(1) |
| SeparateCost TEXT(1) |
| IncludeOnVoucher TEXT(1) |
| ApplyNetback TEXT(1) |

This table contains entries for any OPTIONAL other costs that may be associated with a deal.

| dbo.PriceDesc |
|-----------------------|
| PID LONG |
| Description MEMO |
| PriceComment MEMO |
| PriceDesc_UU TEXT(12) |
| PriceDesc_UT DATE |

This table a place for textual descriptions and comments about pricing/etc.

This table represents a matrix of all possible combinations of deal classifications. Calculation rules (such as WASP indicators) are stored based on these classification combinations.

200210 6005660

FIG. 3D

Deals Subject Area (ERD) (2 of 2)

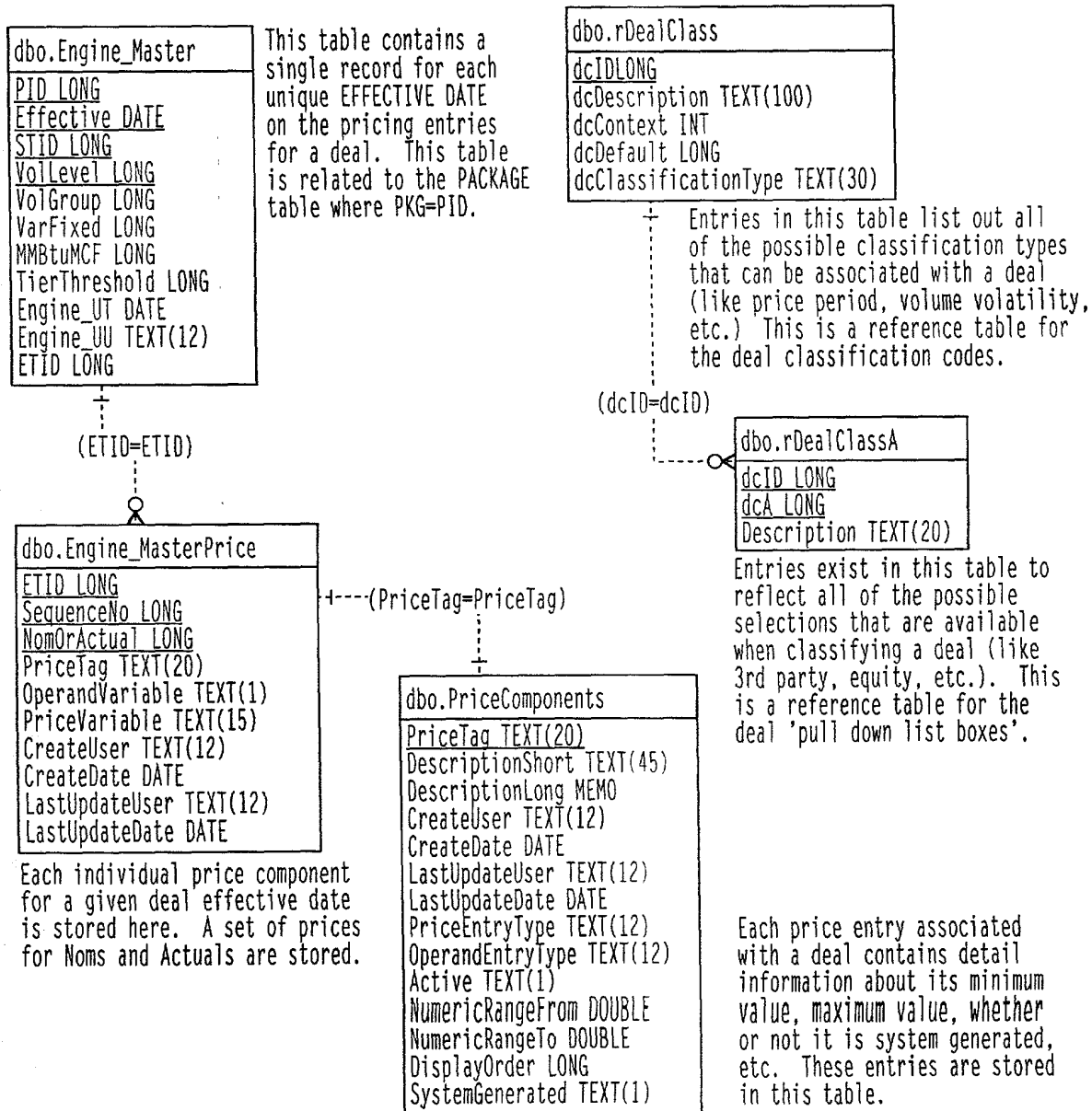
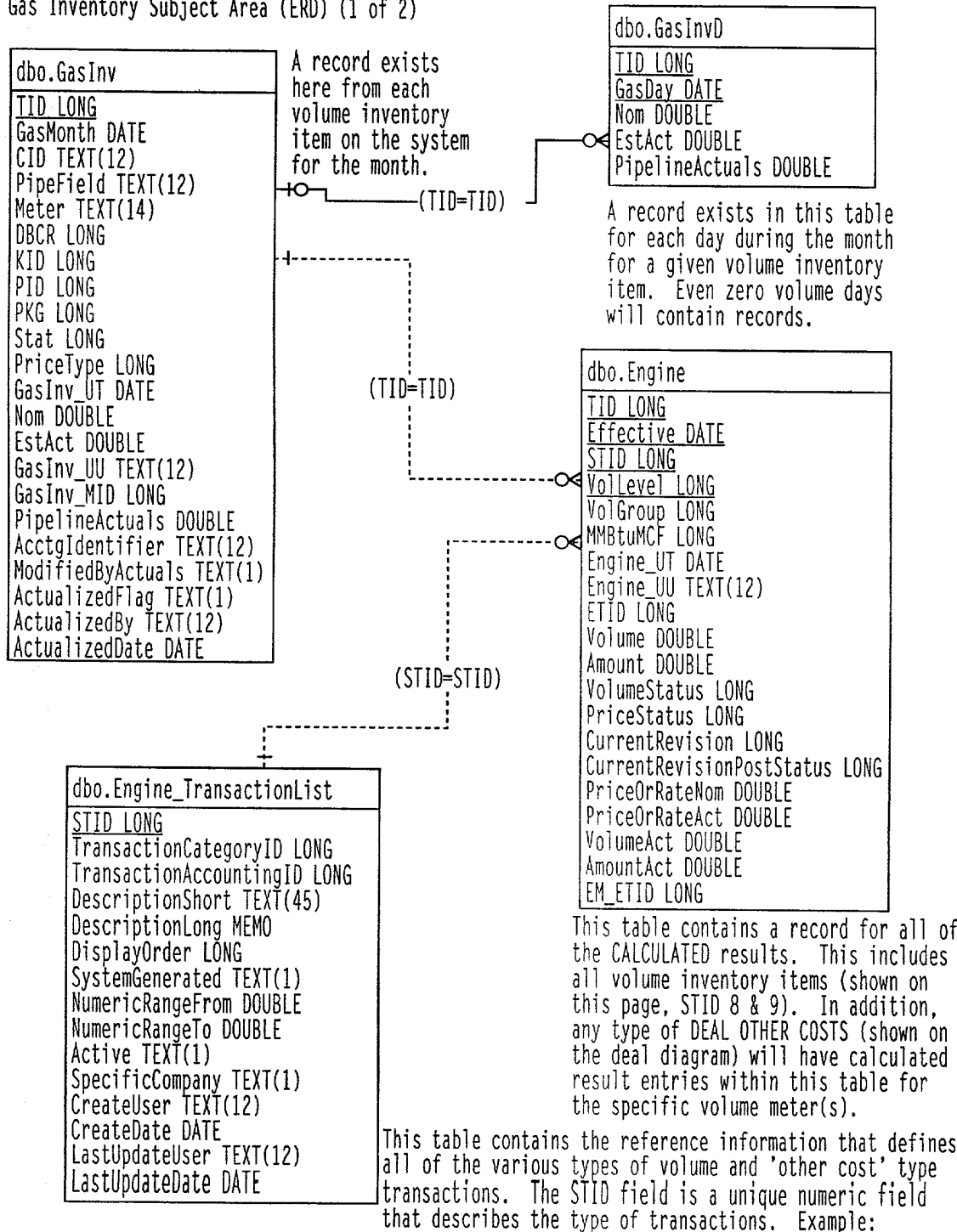


FIG. 3E

Gas Inventory Subject Area (ERD) (1 of 2)



8 = Volume Purchases
 9 = Volume Sales
 etc...

Rules for the population and entry of these types of costs are defined here. The 'Other Cost' information setup for a deal also utilizes this information.

200210" 60056860

FIG. 3F

Gas Inventory Subject Area (ERD) (2 of 2)

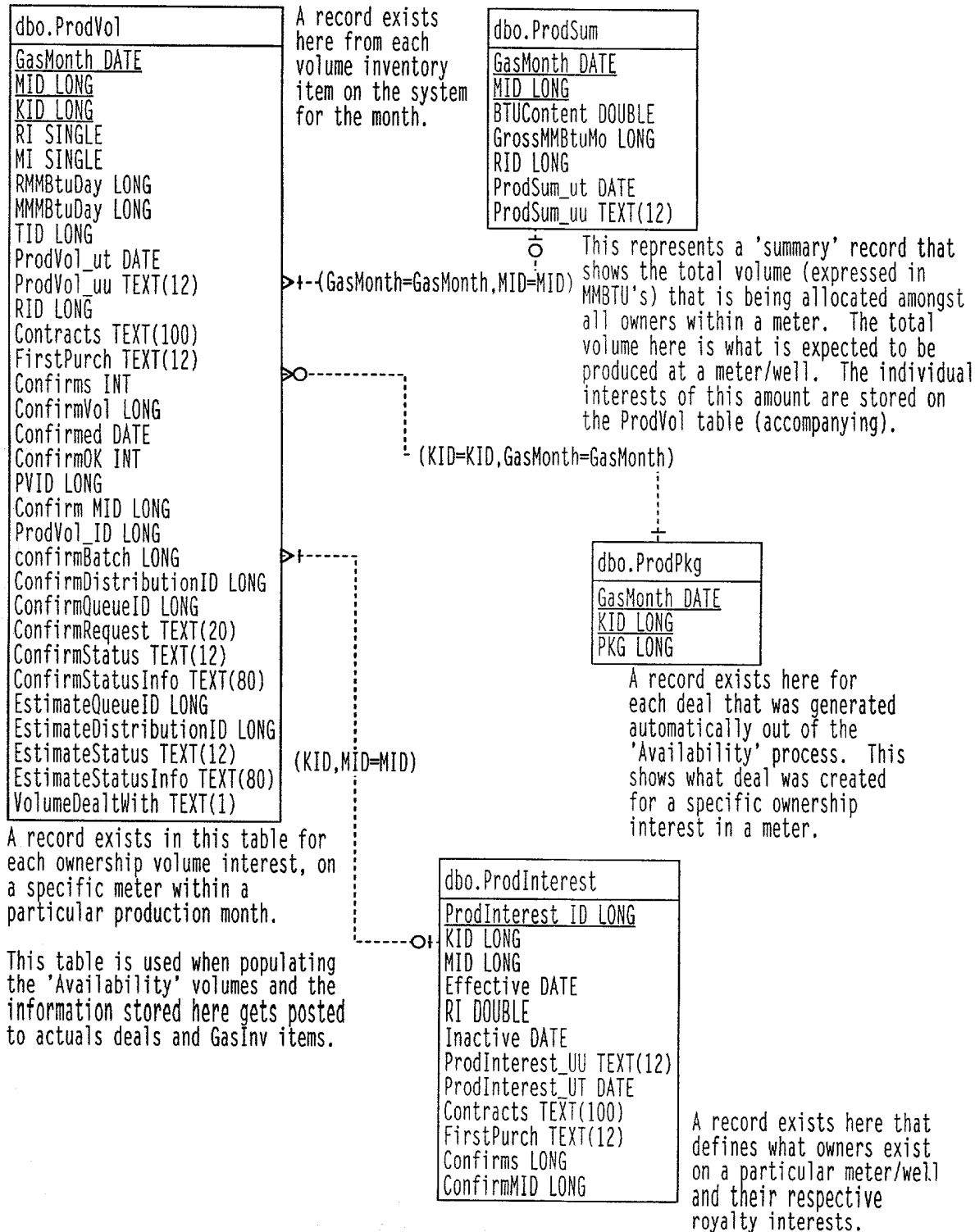


FIG. 3G

Operational Subject Area - 1 of 4 (ERD)

| dbo.PrinterDef |
|----------------------------|
| PrinterNumber LONG |
| DisplayName TEXT(80) |
| ServerPrinterName TEXT(80) |
| InternalPrinter TEXT(1) |

All printers defined in the system are stored in this table.

| dbo.ApplicationMessages |
|----------------------------------|
| ApplicationMessageID LONG |
| ApplicationMessageDate DATE |
| ApplicationMessageText TEXT(255) |

This table contains application messages that normally only print to the server console (for example when a calculation is running the messages are written here.

| dbo.ExceptionCategories |
|-------------------------|
| ExceptionType TEXT(12) |
| ExceptionNo LONG |
| ExceptionShort TEXT(45) |
| ExceptionLong MEMO |
| CreateUser TEXT(12) |
| CreateDate DATE |
| LastUpdateUser TEXT(12) |
| LastUpdateDate DATE |
| ExceptionOrder LONG |

This table contains record entries for all of the possible exception reason categories defined within the system. These reasons are based on the type of exception that occurs ('Deal', 'Pricing', etc.).

-(ExceptionType=ExceptionType, ExceptionNo=ExceptionNo)

| dbo.LogTable |
|-------------------|
| LogEntry LONG |
| LogDate Time DATE |
| LogInfo TEXT(254) |

This table is used primarily for debugging purposes and is not utilized by any screen or reporting process.

| dbo.ExceptionList |
|-------------------------|
| ExceptionListID LONG |
| ExceptionType TEXT(12) |
| ExceptionKey LONG |
| ExceptionDate DATE |
| ExceptionSequence LONG |
| ExceptionEvent TEXT(45) |
| ExceptionNo LONG |
| ExceptionBy TEXT(12) |
| ExceptionComments MEMO |
| CreateUser TEXT(12) |
| CreateDate DATE |
| LastUpdateUser TEXT(12) |
| LastUpdateDate DATE |

This table contains the actual exception event entries. The ExceptionKey and sequence columns associate the exception to the entity based on type (ie., PKGID would be the key for ExceptionType = 'DEAL').

| dbo.rGasMonth |
|-------------------------|
| GasMonth DATE |
| CurrentStatus TEXT(20) |
| CurrentSequence LONG |
| CreateUser TEXT(12) |
| CreateDate DATE |
| LastUpdateUser TEXT(12) |
| LastUpdateDate DATE |
| LockedUser TEXT(12) |
| LockedDate DATE |

One record exists in this table for every production month in the system. In addition, this table contains the CURRENT status field ('Availability', 'Sales', etc.).

| dbo.rGasMonthStatus |
|-------------------------|
| GasMonth DATE |
| CurrentSequence LONG |
| Status TEXT(20) |
| CreateUser TEXT(12) |
| CreateDate DATE |
| LastUpdateUser TEXT(12) |
| LastUpdateDate DATE |

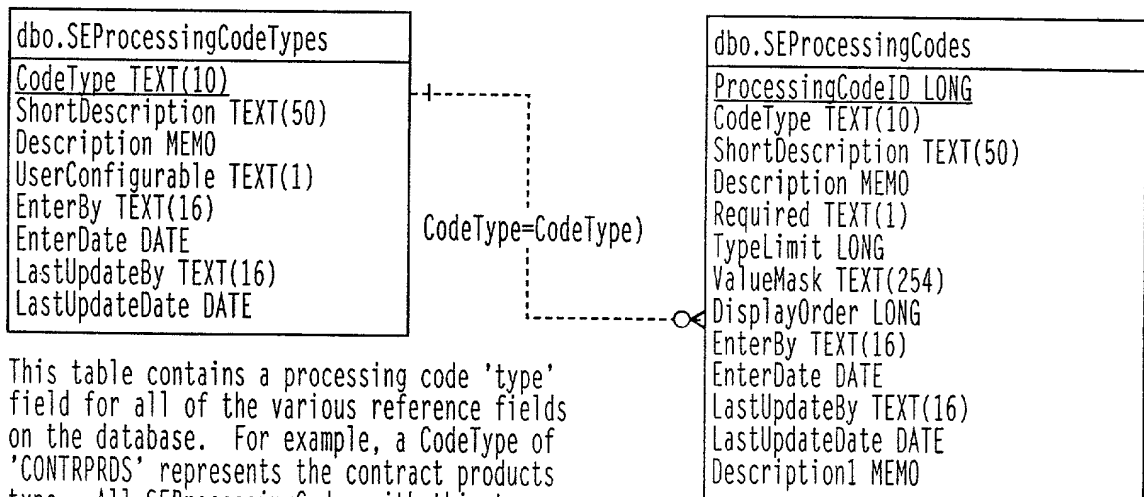
This table represents an 'audit' table that captures the production month information EVERYTIME the status is changed. This provides for detail analysis on how long production months are left in a particular status.

(GasMonth=GasMonth)

20010628 00036960

FIG. 3H

Operational Subject Area - 2 of 4 (ERD)



This table contains a processing code 'type' field for all of the various reference fields on the database. For example, a CodeType of 'CONTRPRDS' represents the contract products type. All SEProcessingCodes with this type represent the available contract products.

This table contains a record for each unique processing code on the system. For example a processingcodeid=113 and a CodeType='CONTRPRDS' has a short description of 'Gas'. This represents the gas contract product code.

| dbo.SELocations |
|------------------------------|
| LocationID LONG |
| LocationUNCPATH TEXT(254) |
| LocationName TEXT(30) |
| LocationDescription MEMO |
| LocationAutoCompress TEXT(1) |
| LocationOrder LONG |
| EnterBy TEXT(16) |
| EnterDate DATE |
| LastUpdateBy TEXT(16) |
| LastUpdateDate DATE |

This table contains record entries for all of the locations (server paths) that are used within the system.

| dbo.SEMessages |
|----------------------------|
| MessagesSubsystem TEXT(10) |
| MessagesID LONG |
| MessagesType TEXT(10) |
| MessageDescription MEMO |
| EnterBy TEXT(16) |
| EnterDate DATE |
| LastUpdateBy TEXT(16) |
| LastUpdateDate DATE |

This table contains record entries for all of the application messages (error, confirmational, informational, etc.).

| dbo.SEAudit |
|---------------------|
| AuditID LONG |
| AuditSys TEXT(30) |
| AuditEvent TEXT(30) |
| AuditBy TEXT(16) |
| AuditDateTime DATE |
| AuditText TEXT(255) |

This table contains record entries for auditable events that are captured within the system. Reports are written to review this information. An example is the 'Login' attempts and/or the actualization attempts (by pipefield).

| dbo.SEImages |
|--------------------------------|
| ImageType TEXT(12) |
| ImageKey TEXT(16) |
| ImageScreen MEMO |
| ImageReport MEMO |
| ImageShortDescription TEXT(60) |
| ImageDescription MEMO |
| CreateDate DATE |
| CreateUser TEXT(16) |
| LastUpdateDate DATE |
| LastUpdateUser TEXT(16) |

This table contains record entries for all standard system graphic images. Letterhead logos, screen graphic logos, etc.

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Operational Subject Area - 3 of 4 (ERD)

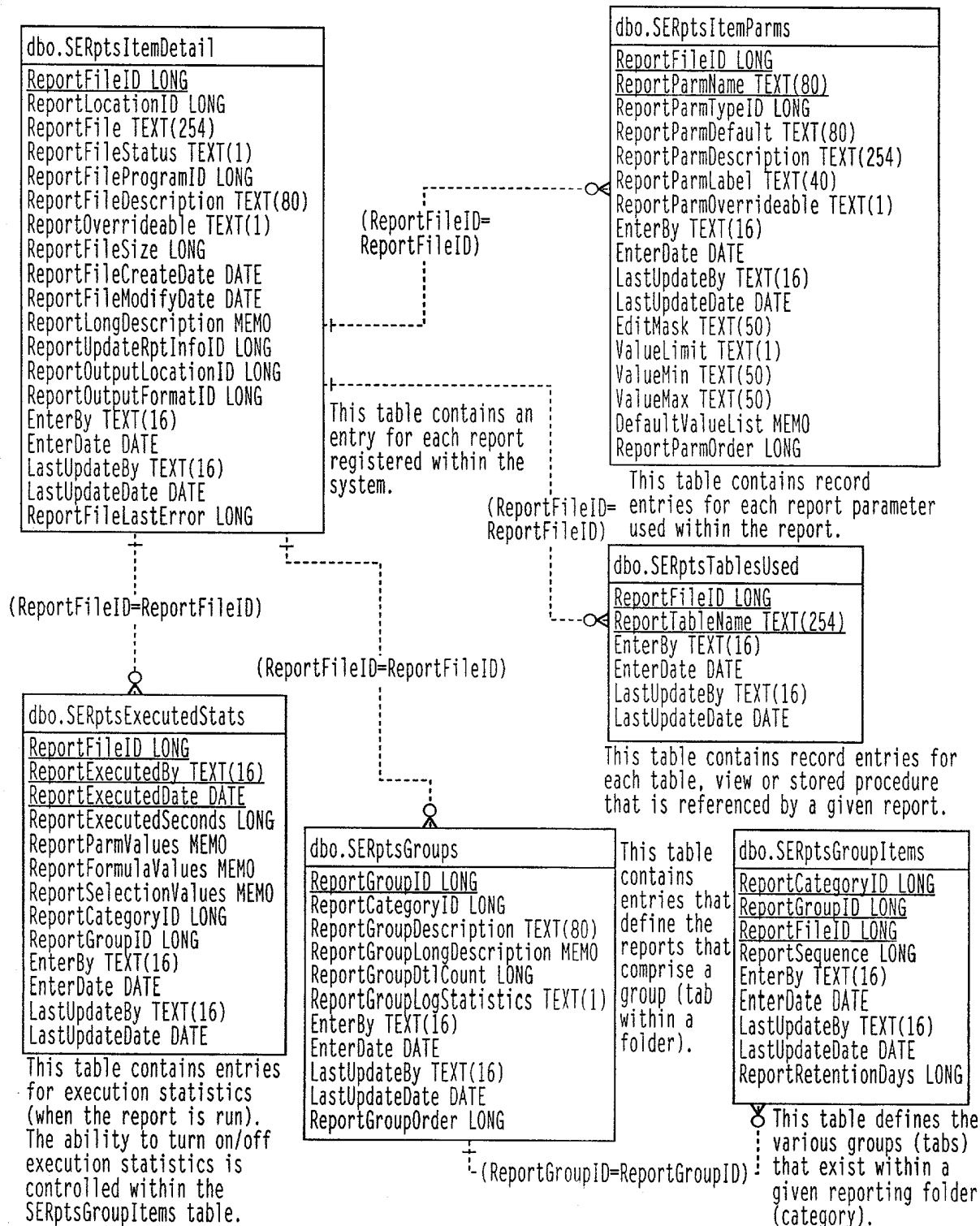
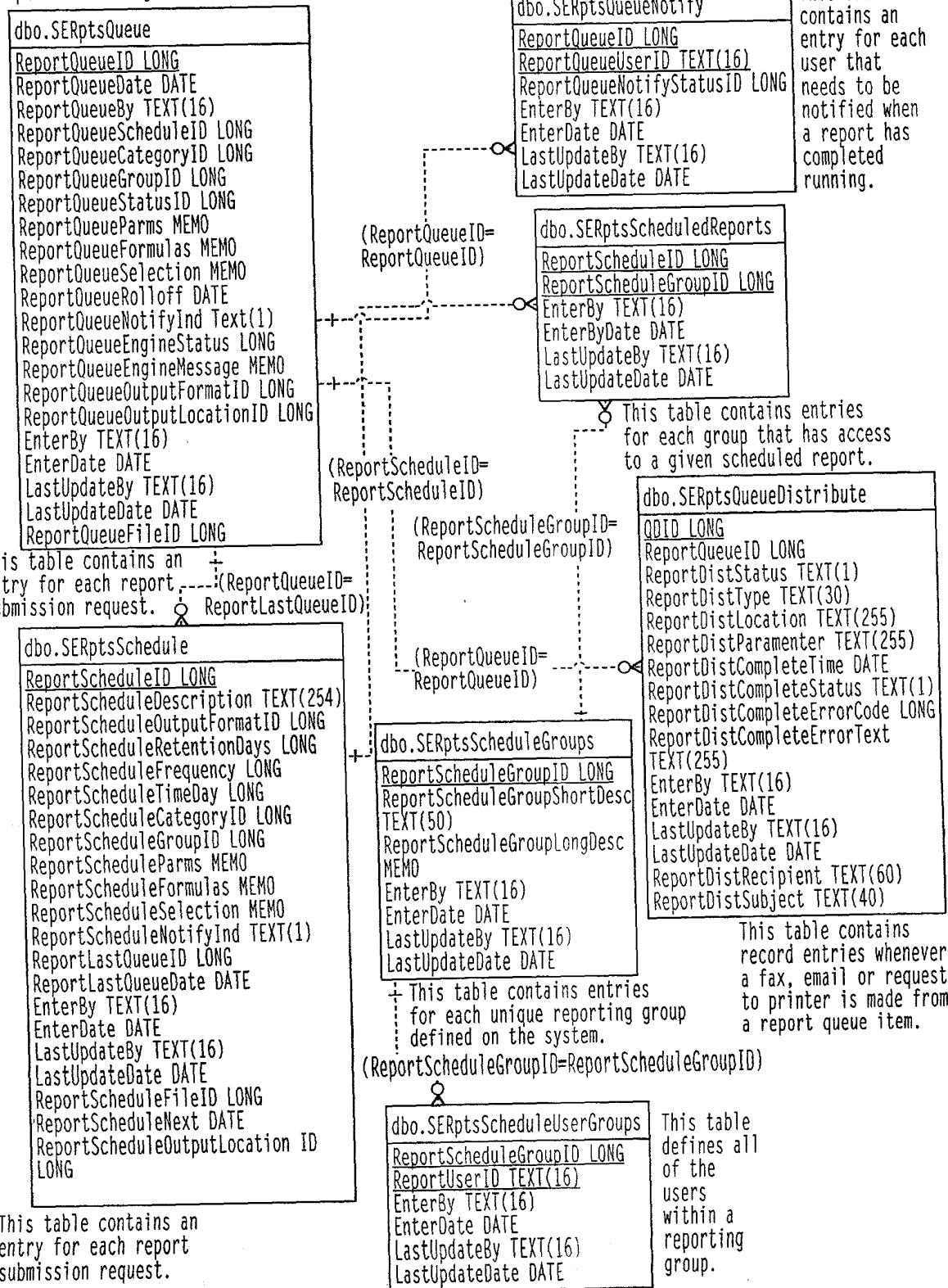


FIG. 3J

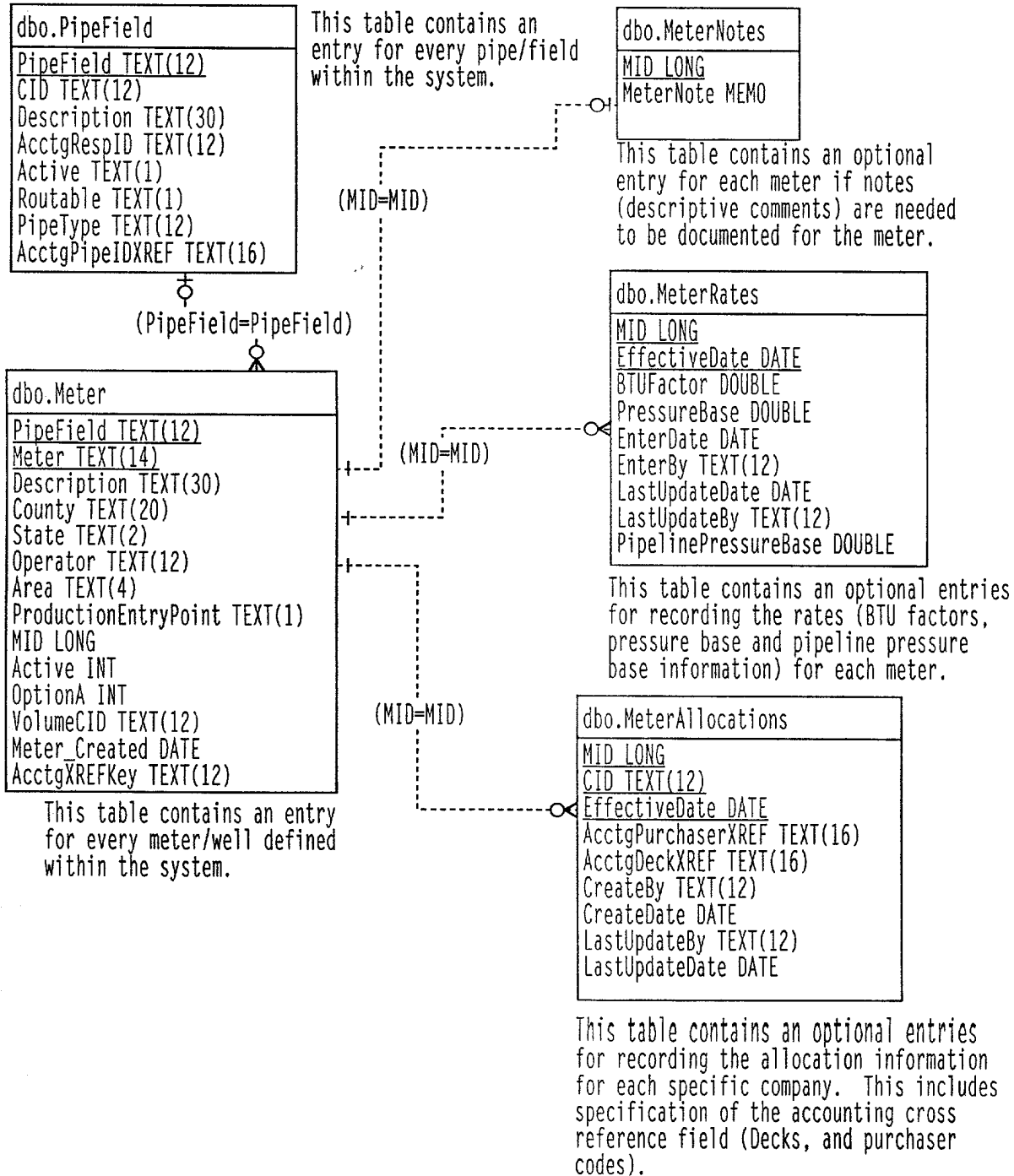
Operational Subject Area - 4 of 4 (ERD)



20090009-012802

FIG. 3K

Pipes & Meters Subject Area (ERD)



200210-60056660

FIG. 3L

Pricing Subject Area (ERD)

| dbo.IndexRef |
|---------------------------|
| <u>IndexID</u> TEXT(12) |
| IndexDescription TEXT(60) |
| IndexActive LONG |
| DailyIndex LONG |
| DisplayOrder LONG |
| IndexAreaID LONG |

All Energy Management price indices have a single record within this table. The area ID references the SEProcessingCodes table.

| dbo.GCIndex |
|-------------------------|
| <u>GasMonth</u> DATE |
| <u>GasDay</u> DATE |
| <u>IndexID</u> TEXT(12) |
| IndexVal DOUBLE |

This table contains pricing entries for all indices (monthly only shows as first day of month).

| dbo.IndexBaskets |
|-------------------------------|
| <u>IndexBasketID</u> TEXT(12) |
| IndexBasketShort TEXT(45) |
| IndexBasketLong MEMO |
| CreateUser TEXT(12) |
| CreateDate DATE |
| LastUpdateUser TEXT(12) |
| LastUpdateDate DATE |

All of the index baskets are defined within this table.

| dbo.IndexBasketLink |
|-------------------------------|
| <u>IndexBasketID</u> TEXT(12) |
| <u>IndexID</u> TEXT(12) |
| CreateUser TEXT(12) |
| CreateDate DATE |
| LastUpdateUser TEXT(12) |
| LastUpdateDate DATE |

This table contains entries for each index within an index basket.

+(IndexID=IndexID)

(IndexID=IndexID)

(IndexBasketID=IndexBasketID)

20021010 60055600

FIG. 3M

Routing Subject Area (ERD)

| |
|---------------------------|
| dbo.LegRef |
| RecPipe TEXT(12) |
| RecMeter TEXT(14) |
| DelPipe TEXT(12) |
| DelMeter TEXT(14) |
| KID LONG |
| LID LONG |
| TransportationRate DOUBLE |
| GatheringRate DOUBLE |
| TransBasis TEXT(8) |
| FuelPercent DOUBLE |
| LegRef_UT DATE |
| Active DATE |
| Inactive DATE |
| LegRef_uu TEXT(12) |
| PlantVolReduction DOUBLE |

This table contains a single record for every possible 'Leg' defined within the system. A leg is the method to move volume between meters/wells. Any rates or costs associated with these legs are stored on this record.

| |
|------------------------------|
| dbo.Leg |
| GasMonth DATE |
| LID LONG |
| RecPipe TEXT(12) |
| RecMeter TEXT(14) |
| DelPipe TEXT(12) |
| DelMeter TEXT(14) |
| KID LONG |
| TransportationRate DOUBLE |
| GatheringRate DOUBLE |
| TransBasis TEXT(8) |
| FuelPercent DOUBLE |
| Leg_UT DATE |
| Leg_uu TEXT(12) |
| TransportationRateAct DOUBLE |
| GatheringRateAct DOUBLE |
| TransBasisAct TEXT(8) |
| FuelPercentAct DOUBLE |
| PlantVolReduction DOUBLE |
| PlantVolReductionAct DOUBLE |

A record is created within this table whenever actual volume is routed within a given month. The Gas/Inv table (pricetype=3) transactions represent purchase/sale legs. For every purchase there is a sale (dual entry). Any costs for volume using the leg are stored on this record.

(LID=LID)
 (LID=LID, GasMonth=GasMonth)
 (LID=LID)

| |
|----------------------------|
| dbo.LegDetail |
| LDID LONG |
| GasMonth DATE |
| GasDay DATE |
| LID LONG |
| NomOrActuals LONG |
| Step LONG |
| PurchasePKG LONG |
| RecMID LONG |
| DelMID LONG |
| Receipt DOUBLE |
| FuelOrOther DOUBLE |
| Delivered DOUBLE |
| Balance DOUBLE |
| SalesPKG LONG |
| CreateUser TEXT(12) |
| CreateDate DATE |
| LastUpdateUser TEXT(12) |
| LastUpdateDate DATE |
| TransportationRate DOUBLE |
| GatheringRate DOUBLE |
| TransBasis TEXT(8) |
| FuelPercent DOUBLE |
| PlantVolReduction DOUBLE |
| DailyRateUsed TEXT(1) |
| LDIDPrev LONG |
| PurchasePointMID LONG |
| PurchasePointTID LONG |
| ManualRateOverride TEXT(1) |

Entries in this table represent the actual 'hops' (routes) between the meters for the production month (nom and actual entries).

| |
|------------------------------|
| dbo.LegD |
| LRDID LONG |
| LID LONG |
| EffectiveFrom DATE |
| EffectiveThru DATE |
| RecPipe TEXT(12) |
| RecMeter TEXT(14) |
| DelPipe TEXT(12) |
| DelMeter TEXT(14) |
| KID LONG |
| TransportationRate DOUBLE |
| GatheringRate DOUBLE |
| TransBasis TEXT(8) |
| FuelPercent DOUBLE |
| LegD_UT DATE |
| LegD_UU TEXT(12) |
| PlantVolReduction DOUBLE |
| GasMonth DATE |
| TransportationRateAct DOUBLE |
| GatheringRateAct DOUBLE |
| TransBasisAct TEXT(8) |
| FuelPercentAct DOUBLE |
| PlantVolReductionAct DOUBLE |

This area of the database provides the location for storing a DAILY leg rate for a specific leg in the system. When calculating costs first the daily rates are checked (here). If none found then the monthly rates are used.

| |
|-----------------------------|
| dbo.WASResolvedRouting |
| ResolvedID LONG |
| GasMonth DATE |
| DelMID LONG |
| RecMID LONG |
| LID LONG |
| NomOrActual LONG |
| Receipt DOUBLE |
| FuelOrOther DOUBLE |
| Delivered DOUBLE |
| TransportAmount DOUBLE |
| GatheringAmount DOUBLE |
| Amount DOUBLE |
| IncludeInWASP TEXT(10) |
| DedicatedPurchasePKG LONG |
| Price DOUBLE |
| ResolvedReceipt DOUBLE |
| ResolvedIndicator TEXT(1) |
| ResolvedType TEXT(1) |
| ResolvedDelivered DOUBLE |
| EntityCID TEXT(12) |
| KProductID LONG |
| KServiceID LONG |
| ResolvedReceiptAmt DOUBLE |
| ResolvedDeliveredAmt DOUBLE |

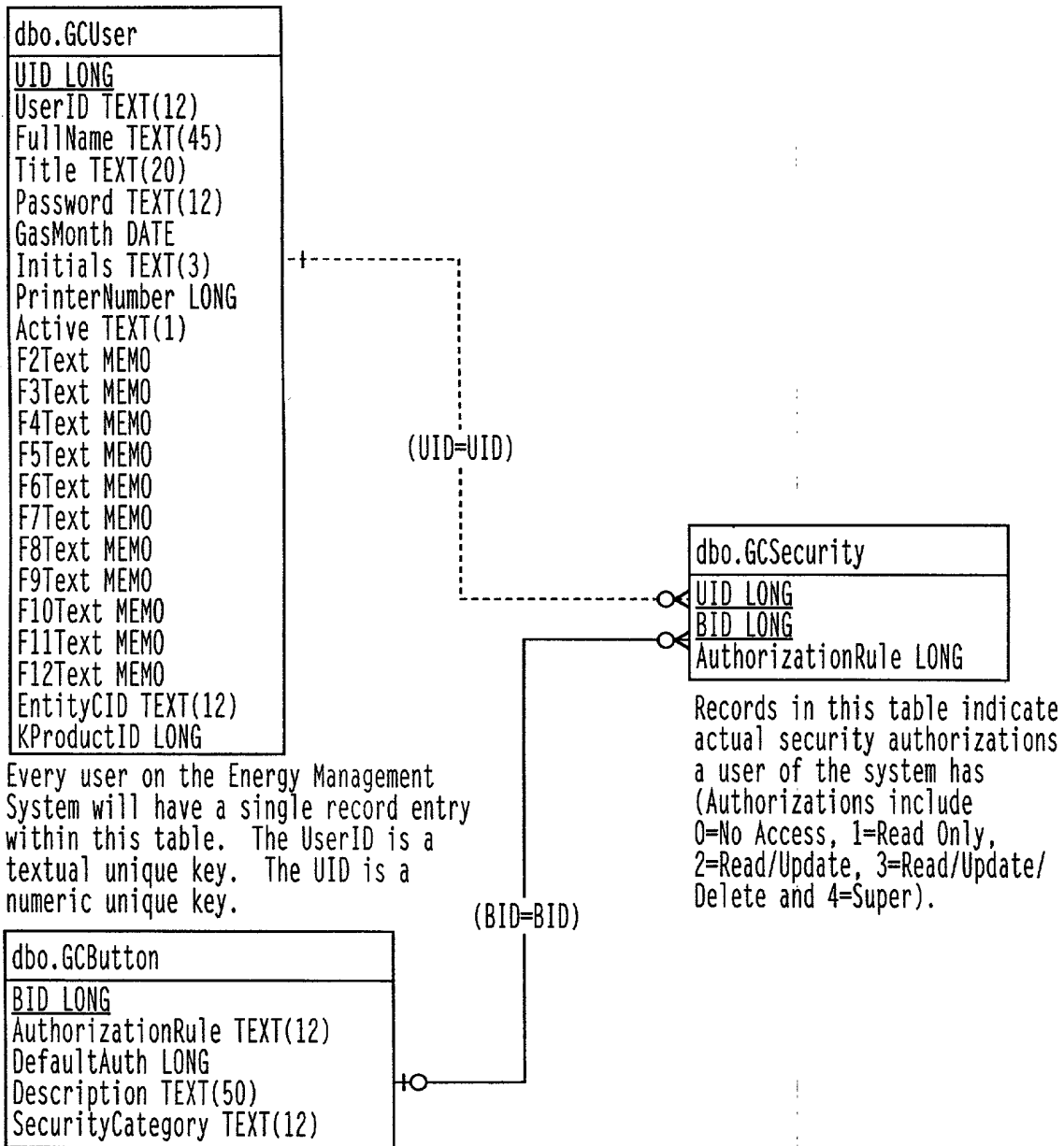
This table holds the detail results of the WASP calculations ('None', 'Dedicated' and 'Common' pool totals).

(LID=LID, GasMonth=GasMonth)

200201060956860

FIG. 3N

Security Subject Area (ERD)



200210160056660

FIG. 4A

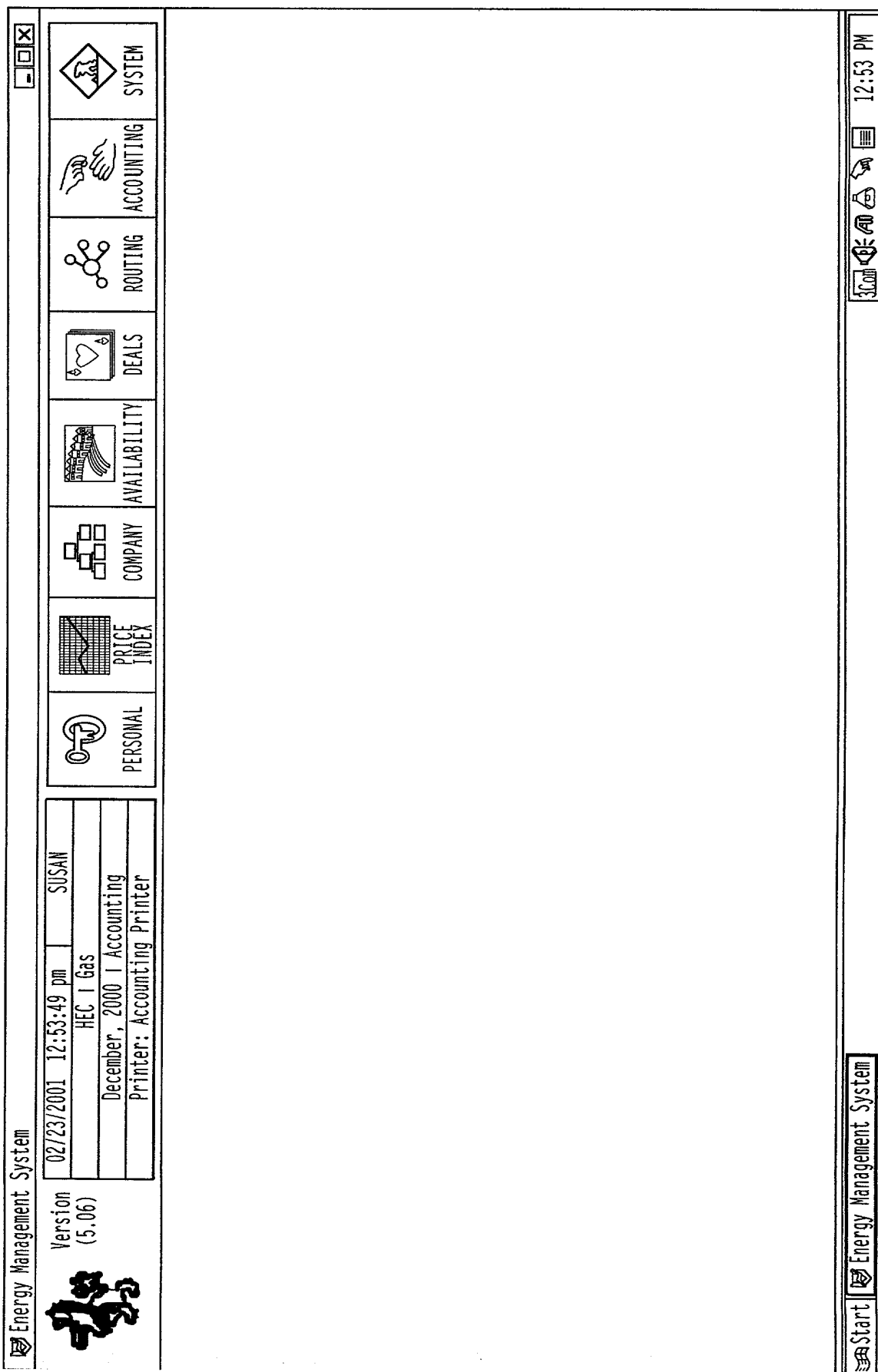



FIG. 4B


Energy Management System


02/23/2001 12:54:37 pm SUSAN


HEC I Gas


December, 2000 I Accounting


Printer: Accounting Printer


PERSONAL


PRICE INDEX


COMPANY

AVAILABILITY


DEALS

ROUTING

ACCOUNTING

SYSTEM

User Profile Detail - (Change)



General F2 Key F3 Key F4 Key F5 Key F6 Key F7 Key F8 Key F9 Key

ID: SUSAN

Full Name: Susan Sims

Title: Dir. of Client Svcs

Password: *****

Month: December / 2000

Entity: HEC

Product: Gas


☒ Active?

Initials: SS

Printer Number: Accounting Printer

Internal User ID: 2448

OK Help Cancel

Start  Energy Management...


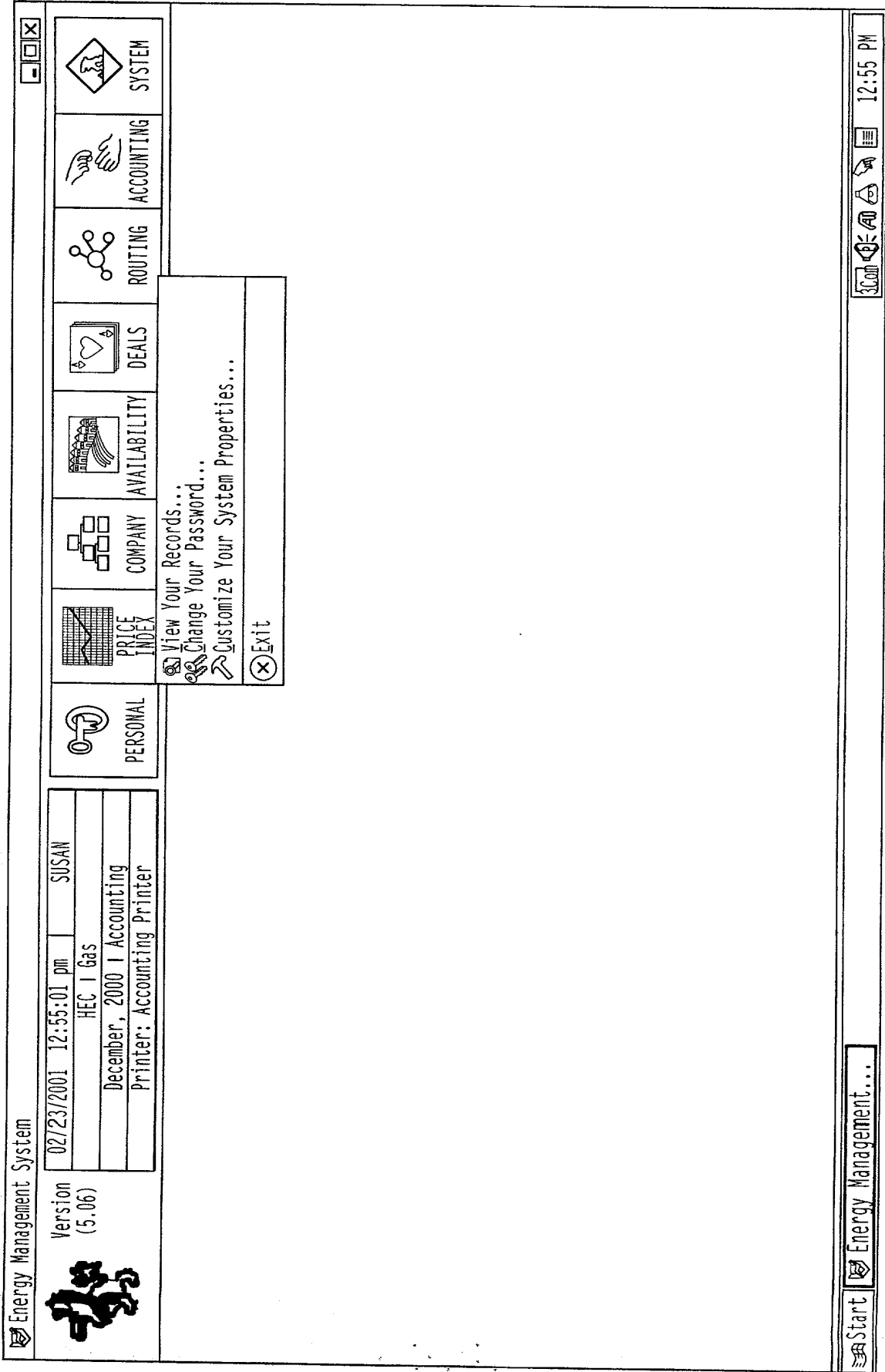
 12:54 PM

FIG. 4C



Energy Management System

| Report Viewer | | Reports Submitted by You | | Reports Submitted by the Schedule... | |
|---------------------------------|------------------------|--------------------------|------------------------|--------------------------------------|------------|
| Report Name | Submit Date | Completion Status | Rolloff Date | Output Format | Error Code |
| Purchase and Sales By Company | 02/23/2001 12:50:50 PM | Completed | 03/02/2001 12:50:50 PM | Acrobat PI | 0 |
| Deals By Business Partner | 02/23/2001 12:48:52 PM | Completed | 03/02/2001 12:48:52 PM | Acrobat PI | 0 |
| Supply Volumes By Supplier | 02/23/2001 10:56:26 AM | Completed | 03/02/2001 10:56:26 AM | Acrobat PI | 0 |
| Actualization Progress | 02/23/2001 10:02:18 AM | Completed | 03/02/2001 10:02:18 AM | Acrobat PI | 0 |
| Vouchers (DRAFT) | 02/20/2001 03:19:53 PM | Completed | 02/27/2001 03:19:53 PM | Acrobat PI | 0 |
| Vouchers (DRAFT) | 02/20/2001 03:19:28 PM | Completed | 02/27/2001 03:19:28 PM | Acrobat PI | 0 |
| Margin Report (By WASP Pool) | 02/19/2001 01:01:56 PM | Completed | 02/26/2001 01:01:56 PM | Acrobat PI | 0 |
| Margin Report (By Pipe/Field) | 02/19/2001 01:01:46 PM | Completed | 02/26/2001 01:01:46 PM | Acrobat PI | 0 |
| Sales Deals By Pipe | 02/19/2001 10:30:35 AM | Completed | 02/26/2001 10:30:35 AM | Acrobat PI | 0 |
| Deals By Business Partner | 02/17/2001 02:57:05 PM | Completed | 02/24/2001 02:57:05 PM | Acrobat PI | 0 |
| Sales Deals By Pipe | 02/17/2001 02:53:15 PM | Completed | 02/24/2001 02:53:15 PM | Acrobat PI | 0 |
| Remittance DRAFT Detail | 02/17/2001 02:52:40 PM | Completed | 02/24/2001 02:52:40 PM | Acrobat PI | 0 |
| Actualization Progress | 02/17/2001 01:13:53 PM | Completed | 02/24/2001 01:13:53 PM | Acrobat PI | 0 |
| WASP Deal Detail | 02/17/2001 12:32:46 PM | Completed | 02/24/2001 12:32:46 PM | Acrobat PI | 0 |
| Routing Details (Ultimate Sale) | 02/17/2001 12:25:32 PM | Completed | 02/24/2001 12:25:32 PM | Acrobat PI | 0 |
| WASP Deal Detail | 02/17/2001 11:38:21 AM | Completed | 02/24/2001 11:38:21 AM | Acrobat PI | 0 |
| WASP Deal Detail | 02/17/2001 11:38:11 AM | Completed | 02/24/2001 11:38:11 AM | Acrobat PI | 0 |
| WASP Deal Detail | 02/17/2001 11:28:50 AM | Completed | 02/24/2001 11:28:50 AM | Acrobat PI | 0 |

Records: 18 Refresh More Lookup...

☒ Auto Refresh? (this will refresh screen automatically every 10 seconds)

Submit Date (DESC) Get Acrobat Reader

FIG. 4G

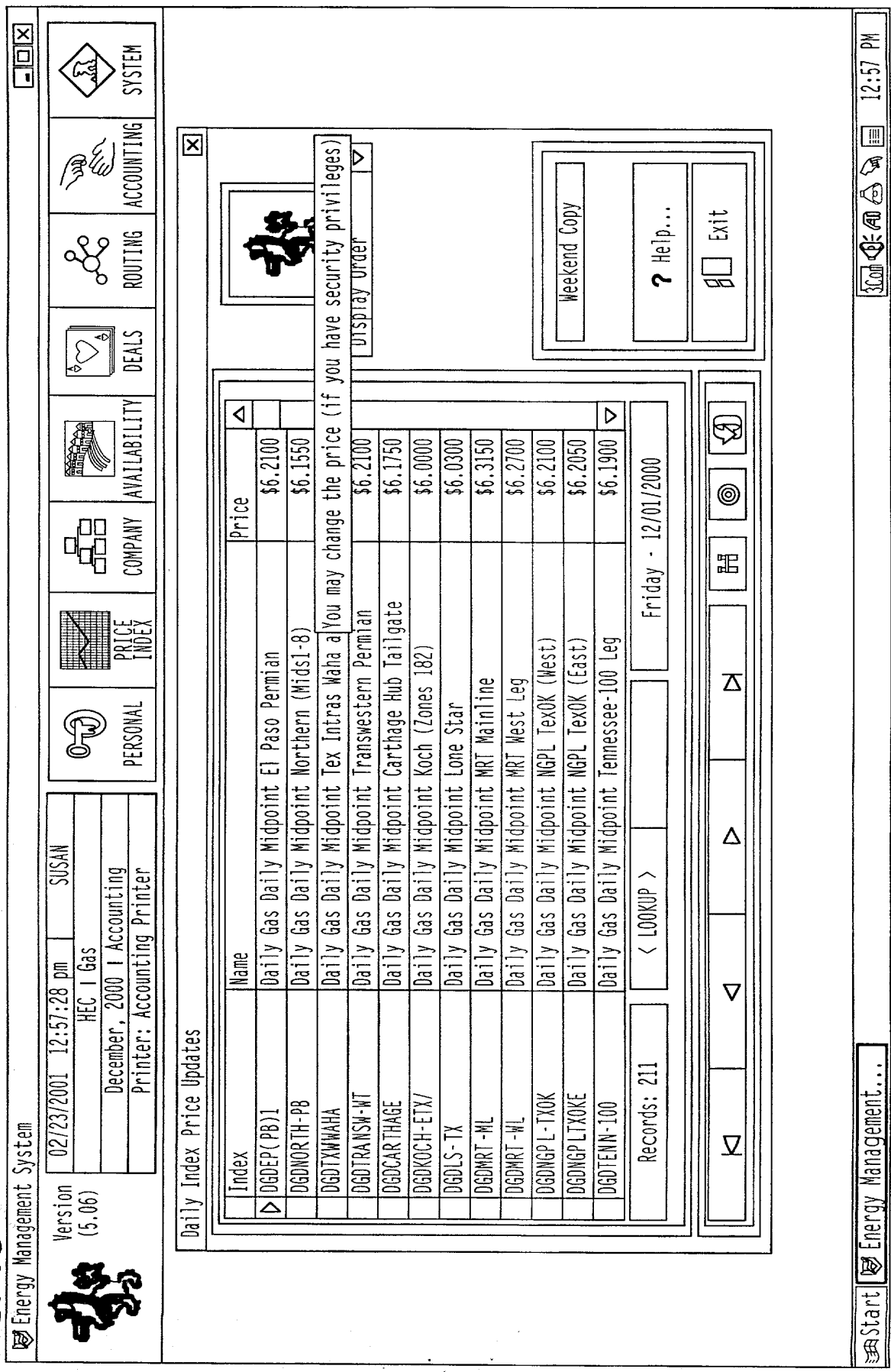


FIG. 4E

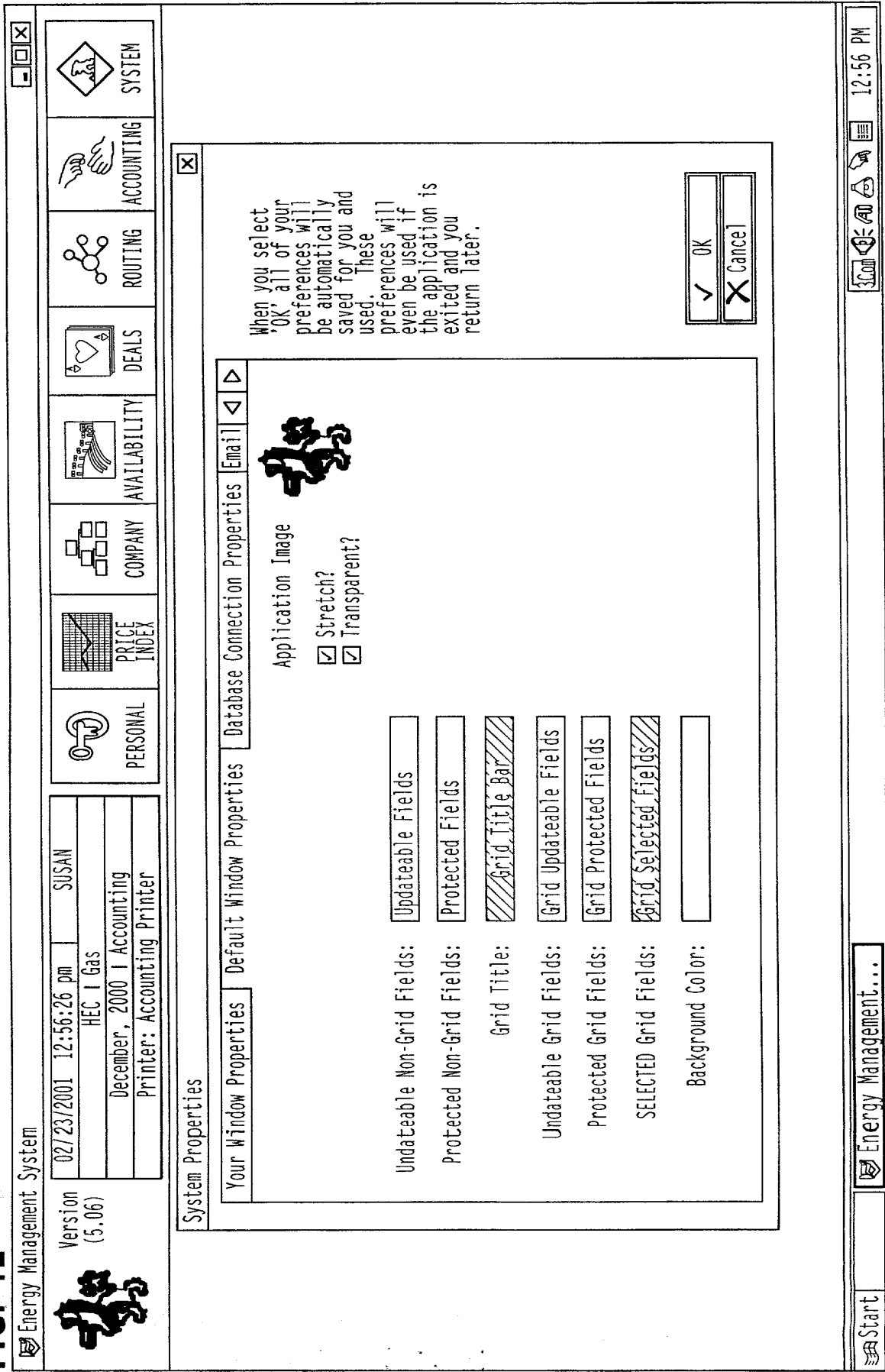
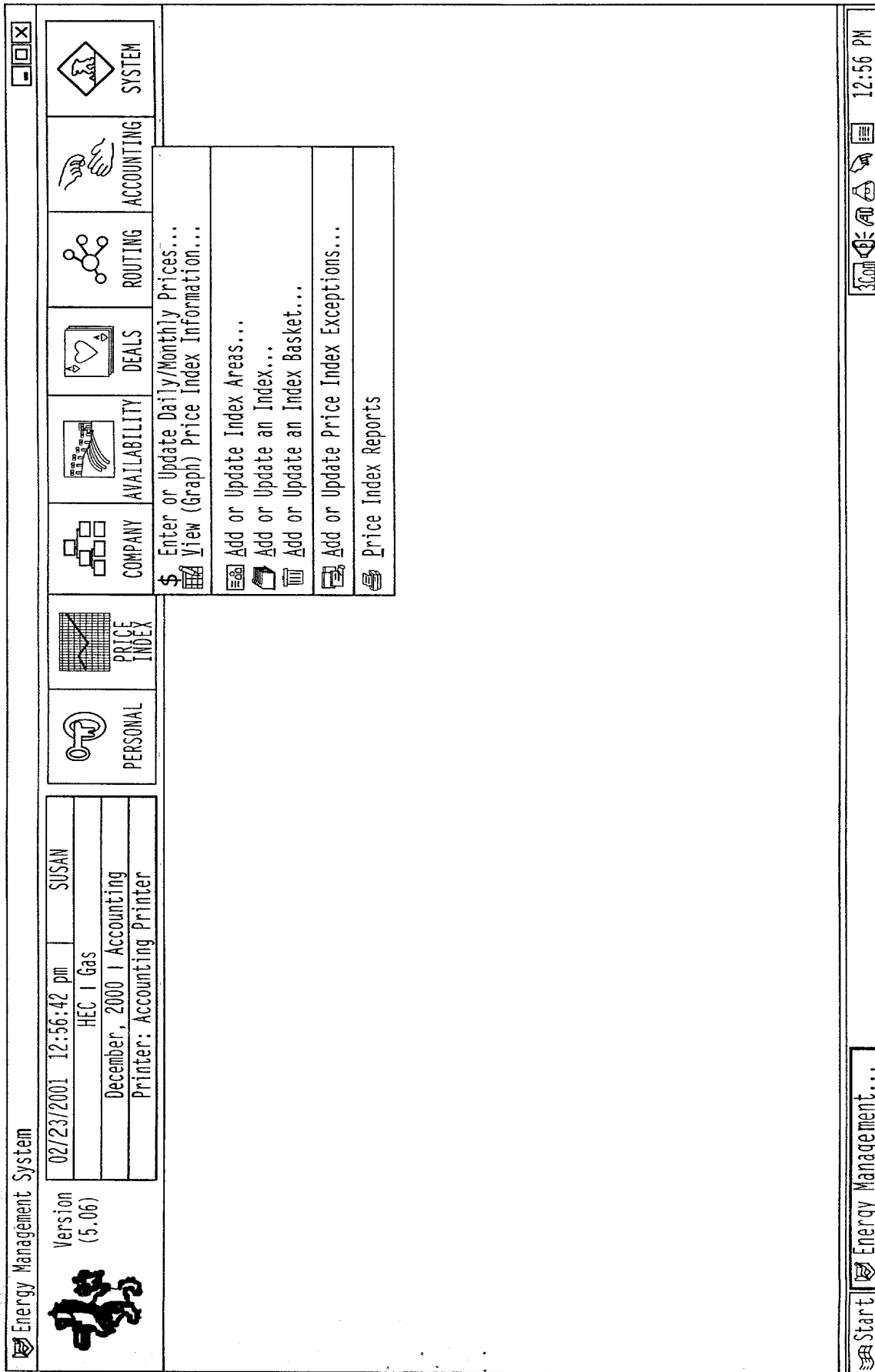


FIG. 4F



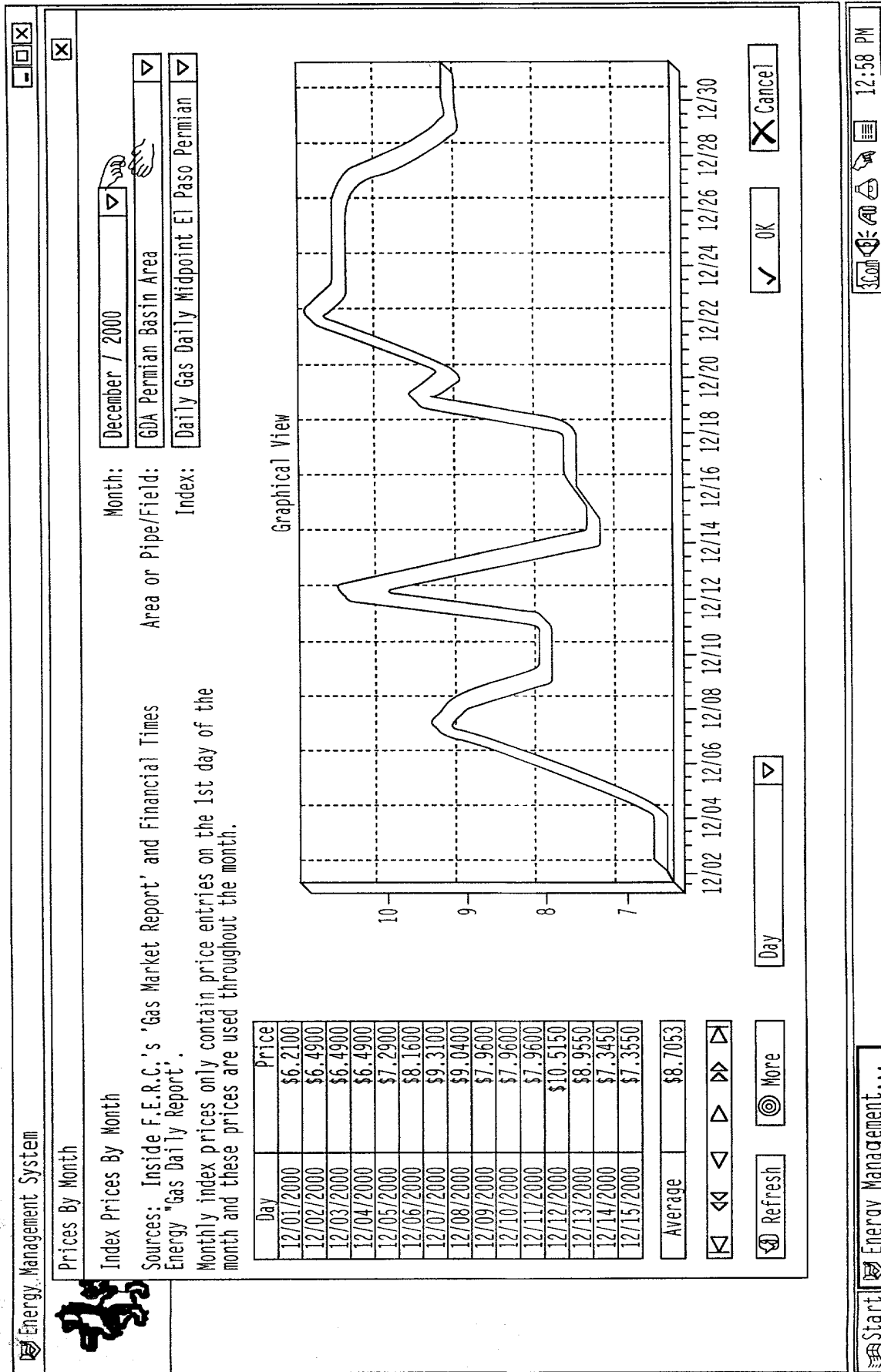


FIG. 4

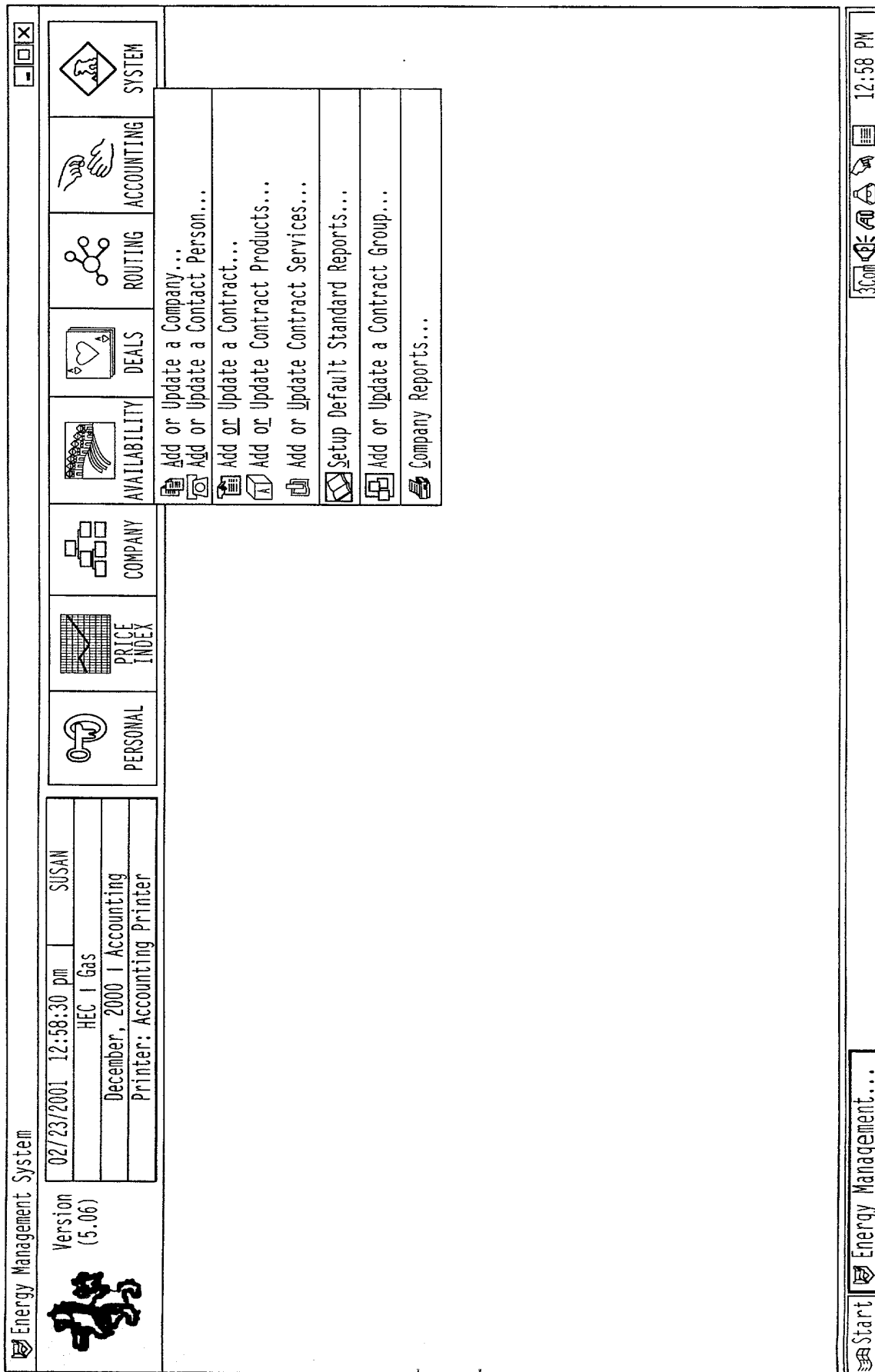


FIG. 4J

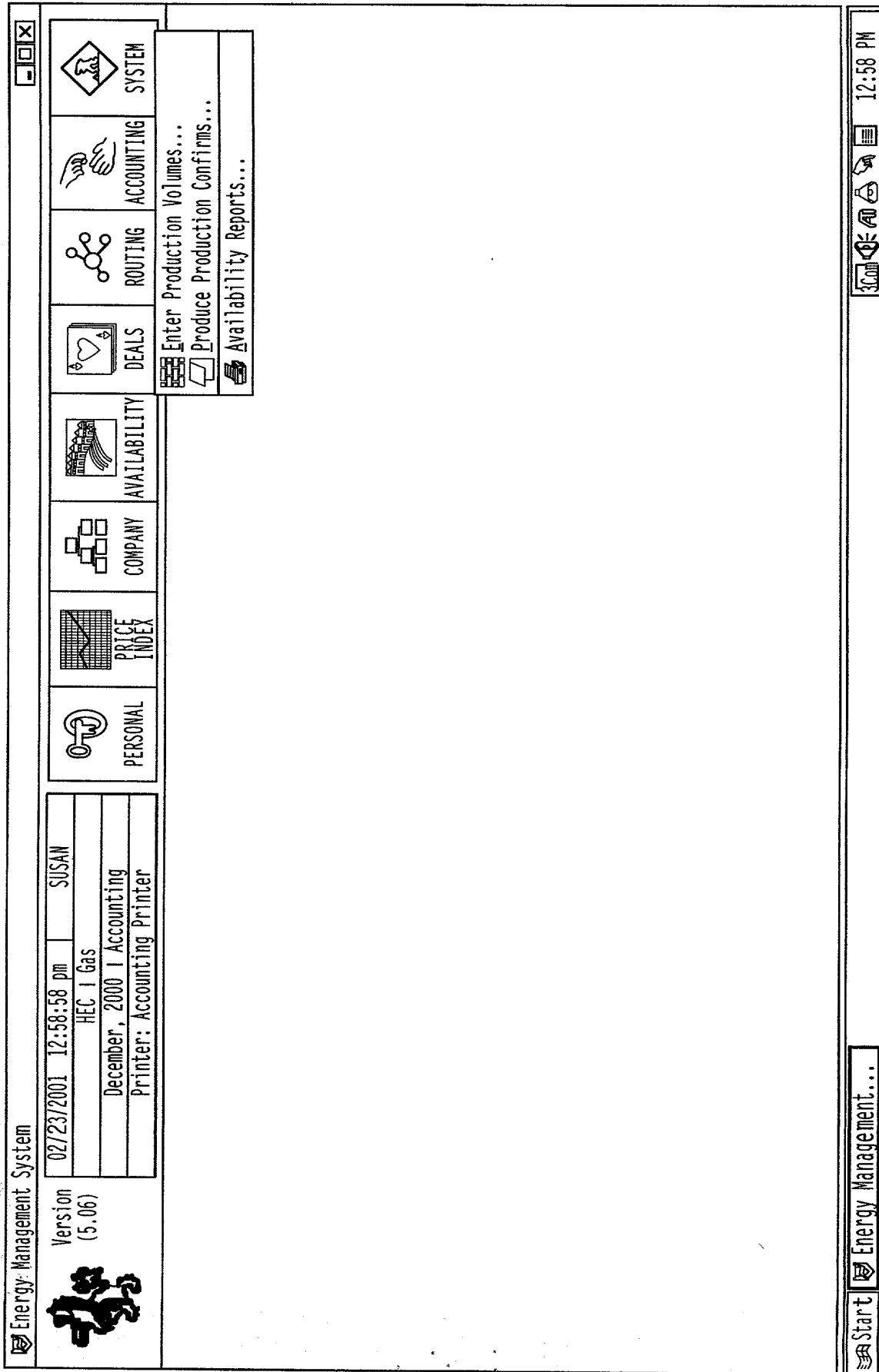


FIG. 4K

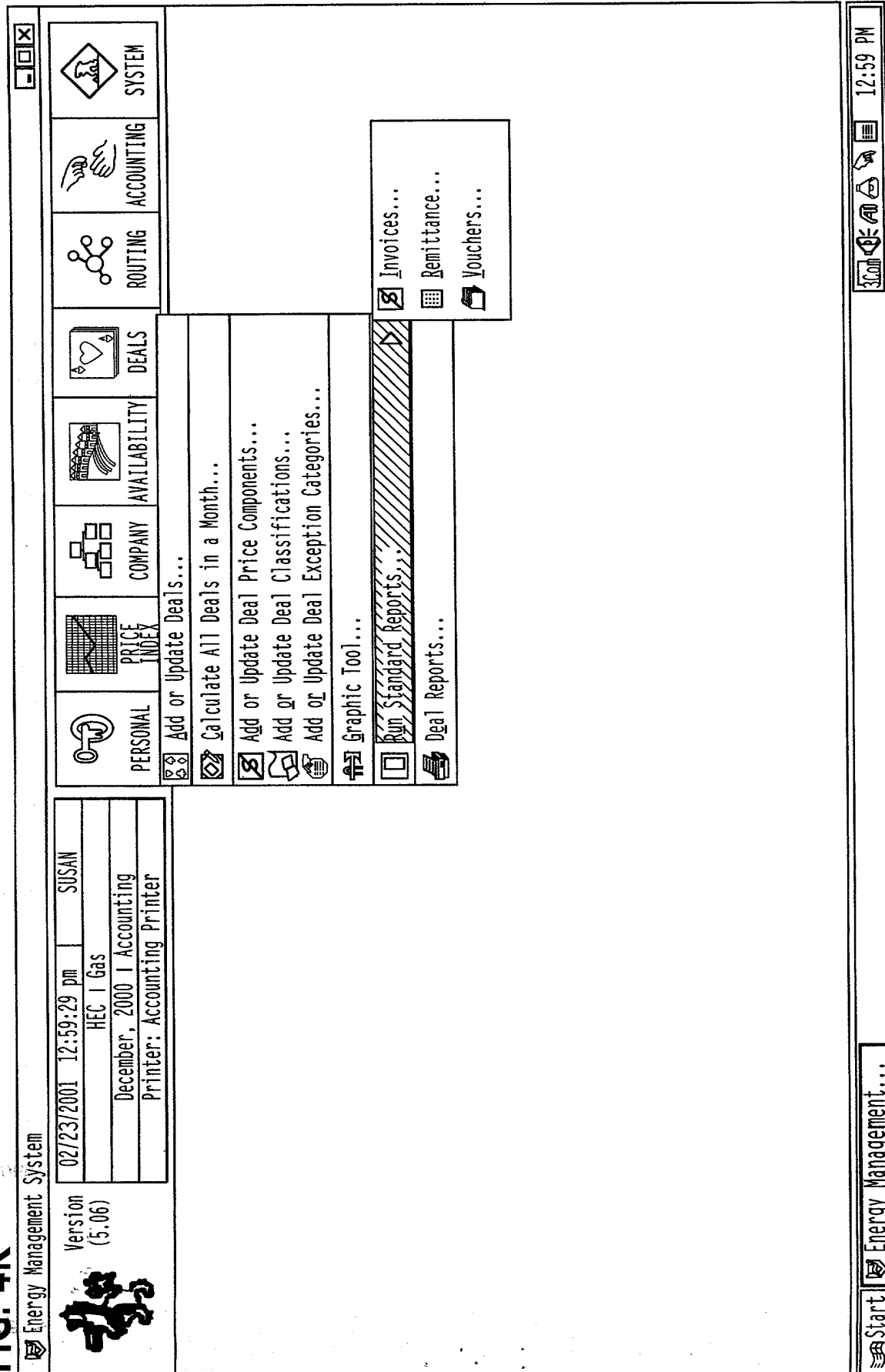


FIG. 4L

Energy Management System

Version (5.06)

02/23/2001 01:01:10 pm SUSAN

HEC I Gas

December, 2000 I Accounting

Deal Details - (Change)

Deal ID: 56028

Product: Gas

Month: December / 2000

Contract... 3TEC Energy Corporation

3TEC OIL & GAS PURCHASE

Description: 12/23-31 3 TEC

Service: Marketing

Status: (Accounting Phase)

3TEC ENERGY

Created

Start Date: 12/23/2000

Thru Date: 12/31/2000

Confirm Report

Rollover Rules | Correspondance | Ownership Interests | Financial Overrides

General | Volumes | Prices | Calculation Results | Audit Information

Their Contact... Janna Calhoun, 713-821-7107

Our Contact... Leslie Vandagriff, 214-954-1430

1-griff@highlandenergy.com

Description: \$5.89*MANUAL NB.99

Comments:

Due:

Classifications

Deal Type: 3rd Party

Vol. Volatility: Baseload

Price Period: Spot

Interruptable: IT

☐ Accounting Use Only?
 (ie. No Invoices or Remittance Reports)

☐ Suppress Volume Calculations?

☐ Park or Loan Deal?

All information relevant to this particular deal is shown on this screen. You have the option of directly changing this information (dependent on status of the month).

OK Help Cancel

Start Energy Management... 1:01 PM

FIG. 4M










| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----------------|--|-------------------------------------|--|-------|--|--|--|--|--|--|--|--|--|---|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Energy Management System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | Version (5.06) | | 02/23/2001 12:59:49 pm HEC I Gas | | SUSAN | |  PERSONAL | |  PRICE INDEX | |  COMPANY | |  AVAILABILITY | |  DEALS | |  ROUTING | |  ACCOUNTING | |  SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td colspan="12"> Propagate to End of Month? <input checked="" type="checkbox"/> Auto Adjust Changes? </td> <td colspan="12"> Route Volume... <input type="checkbox"/> Define Legs... <input type="checkbox"/> Leg History (Monthly Rates)... <input type="checkbox"/> Leg Daily Rates... <input type="checkbox"/> Pipes/Fields... <input checked="" type="checkbox"/> Meters/Wells... <input type="checkbox"/> Routing Reports... Preferences... </td> </tr> </table> | | | | | | | | | | | | | | | | | | | | | | | | Propagate to End of Month? <input checked="" type="checkbox"/> Auto Adjust Changes? | | | | | | | | | | | | Route Volume... <input type="checkbox"/> Define Legs... <input type="checkbox"/> Leg History (Monthly Rates)... <input type="checkbox"/> Leg Daily Rates... <input type="checkbox"/> Pipes/Fields... <input checked="" type="checkbox"/> Meters/Wells... <input type="checkbox"/> Routing Reports... Preferences... | | | | | | | | | | | |
| Propagate to End of Month? <input checked="" type="checkbox"/> Auto Adjust Changes? | | | | | | | | | | | | Route Volume... <input type="checkbox"/> Define Legs... <input type="checkbox"/> Leg History (Monthly Rates)... <input type="checkbox"/> Leg Daily Rates... <input type="checkbox"/> Pipes/Fields... <input checked="" type="checkbox"/> Meters/Wells... <input type="checkbox"/> Routing Reports... Preferences... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td colspan="12"> Energy Management... </td> <td colspan="12"> Start </td> </tr> </table> | | | | | | | | | | | | | | | | | | | | | | | | Energy Management... | | | | | | | | | | | | Start | | | | | | | | | | | |
| Energy Management... | | | | | | | | | | | | Start | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

FIG. 4N

Energy Management System
Route Volume

December 2000

Sun

Mon

Tue

Wed

Thu

Fri

Sat

3

4

10

17

24

31

5

11

18

25

6

12

19

26

7

13

20

27

8

14

21

28

9

15

22

29

1

16

23

30

2

9

16

23

30

Today: 02/23/2001

CGT - Columbia Gulf Transmission

Which Volumes?
☒ Nominations
☐ Actuals

☐ Show Outstanding Balances Only?

Month Status: Accounting

Receipt Side Order
Meter/Well

Right click any of the lists below to see other options.

Energy Management...

Start

1:22 PM

21

Receipts

| Area | Meter/Well | Desc. | Hop | Received | Balan |
|----------|------------|------------------------|-----|-----------|-------|
| 4012 | | Paradis)ERACELAND | 0 | 1,981.00 | 0.0 |
| 4039 | | VALENTINE | 0 | 137.00 | 0.0 |
| 4164 | | WM267A | 0 | 498.00 | 0.0 |
| 4164 | | WM267A | 0 | 15,779.00 | 0.0 |
| 474 | | CENTERVILLE | 2 | 99.00 | 0.0 |
| 481 | | SEA ROBIN | 3 | 2,079.00 | 0.0 |
| 592 | | GARDEN CITY PLANT | 2 | 6,000.00 | 0.0 |
| 592 | | GARDEN CITY PLANT | 2 | 700.00 | 0.0 |
| P2046107 | | Highland Mainline Pool | 0 | 0.00 | 0.0 |
| P2046107 | | Highland Mainline Pool | 1 | 1,969.00 | 0.0 |
| P3046107 | | HIGHLAND ONSHORE POOL | 0 | 0.00 | 0.0 |
| P3046107 | | HIGHLAND ONSHORE POOL | 0 | 0.00 | 0.0 |

Area

Meter/Well

Desc.

Hop

Received

Balan

4012

4039

4164

4164

474

481

592

592

P2046107

P2046107

P3046107

P3046107

Paradis)ERACELAND

VALENTINE

WM267A

WM267A

CENTERVILLE

SEA ROBIN

GARDEN CITY PLANT

GARDEN CITY PLANT

Highland Mainline Pool

Highland Mainline Pool

HIGHLAND ONSHORE POOL

HIGHLAND ONSHORE POOL

0

0

0

0

2

3

2

2

0

1

0

0

1,981.00

137.00

498.00

15,779.00

99.00

2,079.00

6,000.00

700.00

0.00

1,969.00

0.00

0.00

0.0

0.0

0.0

0.0

0.0

0.0

0.0

0.0

0.0

0.0

0.0

0.0

2

Posted Delivery Points

| Pipe Fi... | Area | Meter/W... | Desc. | Hop | Origin | Delivered |
|------------|------|------------|-----------------|-----|---------|-----------|
| GCT | | P2046107 | Highland Mainli | 2 | Sales P | 219.00 |
| GCT | | P2046107 | Highland Mainli | 2 | Sales P | 1,750.00 |

Pipe Fi...

Area

Meter/W...

Desc.

Hop

Origin

Delivered

GCT

GCT

P2046107

P2046107

2

2

Sales P

Sales P

219.00

1,750.00

0

Available Transport Pool/Tank Points

| Pipe... | Area | Meter/Well | Desc. | Contract | F-Perc. | T-Rate |
|---------|------|------------|-------|----------|---------|--------|
|---------|------|------------|-------|----------|---------|--------|

Pipe...

Area

Meter/Well

Desc.

Contract

F-Perc.

T-Rate

7

Available Sale Point(s)

| Pipe... | Area | Meter/Well | Desc. | Balance | Delivered | S-Comp |
|---------|------|------------|----------|---------|-----------|--------|
| GCT | | P2046107 | Highland | 0.00 | 219.00 | HEC |
| GCT | | P2046107 | Highland | 0.00 | 1,750.00 | ENROL |

Pipe...

Area

Meter/Well

Desc.

Balance

Delivered

S-Comp

GCT

GCT

P2046107

P2046107

0.00

0.00

219.00

1,750.00

HEC

ENROL

U.S. Application Serial No. 09/895,009

FIG. 40

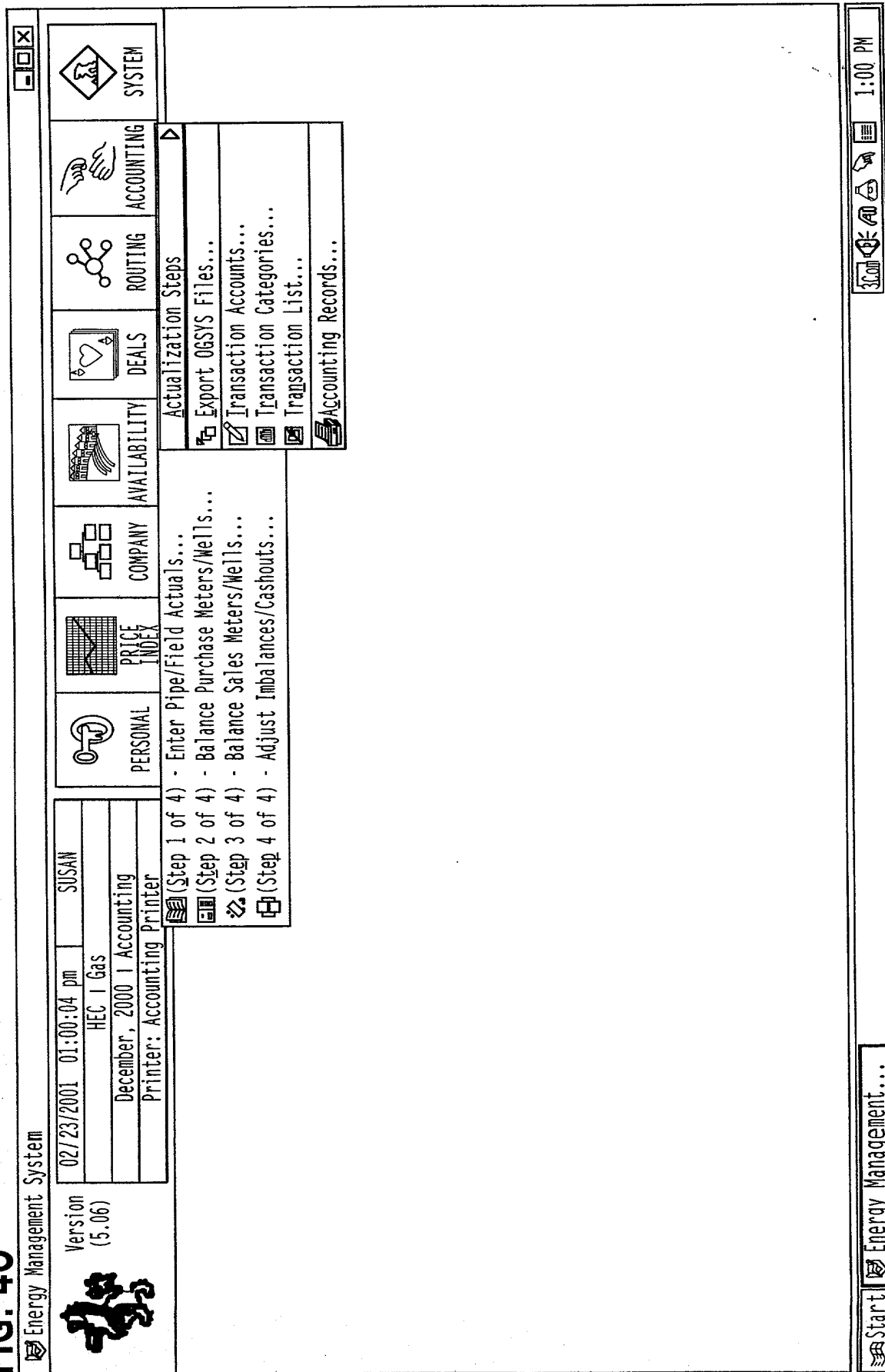


FIG. 4P

Energy Management System

Enter Pipe/Field Actuals

Month: December / 2000

Type: Purchases

(Accounting Phase)

Lookup By: ☐ Pipe ☐ Company

CGT

Columbia Gulf Transmission

☐ WMBTU

☐ MCF

☒ Auto Allocate Volume

☐ Use Volume Entered

Vol: 0

Fctr: 1.000000

From: 1

Thru: 31

Post

Post Prop

Match Noms

| Meter/Well | Description | Deal | Act.? | Actuals | Company |
|------------|------------------------|-------|-------------------------------------|------------|-----------|
| 4012 | Paradis (ERACELAND) | 55105 | <input checked="" type="checkbox"/> | 59,751.00 | 3TECENERC |
| 4039 | VALENTINE | 65220 | <input checked="" type="checkbox"/> | 4,214.00 | TOMBROWN |
| 4164 | WM267A | 65050 | <input checked="" type="checkbox"/> | 41,083.00 | CHEIFTAIN |
| 4164 | WM267A | 65370 | <input checked="" type="checkbox"/> | 392,909.00 | CHIEFTAIN |
| P2046107 | Highland Mainline Pool | 64872 | <input checked="" type="checkbox"/> | 1,934.00 | HEC |
| P3046107 | HIGHLAND ONSHORE | 64872 | <input checked="" type="checkbox"/> | 0.00 | HEC |
| P3046107 | HIGHLAND ONSHORE | 65029 | <input checked="" type="checkbox"/> | 0.00 | HEC |
| P3046107 | HIGHLAND ONSHORE | 65753 | <input checked="" type="checkbox"/> | 30,000.00 | AQUILANER |
| P3046107 | HIGHLAND ONSHORE | 65754 | <input checked="" type="checkbox"/> | 3,090.00 | AQUILANER |

Meter/Well

Volume Allocation

☒ WMBTU

☐ MCF

☒ Auto Allocate Volume

☐ Use Volume Entered

Vol: 0

Fctr: 1.000000

From: 1

Thru: 31

Post

Post Prop

Match Noms

| Deal | Nom | Actual |
|--------|----------|----------|
| Dec 01 | 1,981.00 | 1,941.00 |
| Dec 02 | 1,981.00 | 1,927.00 |
| Dec 03 | 1,981.00 | 1,927.00 |
| Dec 04 | 1,981.00 | 1,927.00 |
| Dec 05 | 1,981.00 | 1,927.00 |
| Dec 06 | 1,981.00 | 1,927.00 |
| Dec 07 | 1,981.00 | 1,927.00 |
| Dec 08 | 1,981.00 | 1,927.00 |
| Dec 09 | 1,981.00 | 1,927.00 |
| Dec 10 | 1,981.00 | 1,927.00 |
| Dec 11 | 1,981.00 | 1,927.00 |
| Dec 12 | 1,981.00 | 1,927.00 |
| Dec 13 | 1,981.00 | 1,927.00 |
| Dec 14 | 1,981.00 | 1,927.00 |
| Dec 15 | 1,981.00 | 1,927.00 |
| Dec 16 | 1,981.00 | 1,927.00 |
| Dec 17 | 1,981.00 | 1,927.00 |
| Dec 18 | 1,981.00 | 1,927.00 |
| Dec 19 | 1,981.00 | 1,927.00 |
| Dec 20 | 1,981.00 | 1,927.00 |
| Dec 21 | 1,981.00 | 1,927.00 |
| Dec 22 | 1,981.00 | 1,927.00 |
| Dec 23 | 1,981.00 | 1,927.00 |
| Dec 24 | 1,981.00 | 1,927.00 |
| Dec 25 | 1,981.00 | 1,927.00 |
| Dec 26 | 1,981.00 | 1,927.00 |
| Dec 27 | 1,981.00 | 1,927.00 |
| Dec 28 | 1,981.00 | 1,927.00 |

You have the option of either entering the daily actual volumes directly next to their respective day (right side list) OR to use the volume allocation panel (right center of the window). Pipe/Field and Meter/Well actual totals at bottom should match your

Right click the meter/well grid to see other options

? Help...
























Exit

Start

Energy Management...

1:25 PM

FIG. 4Q

| Energy Management System | | | |
|--|-----------------------------|-----------------------|-------|
|  | Version (5.06) | 02/23/2001 1:22:21 pm | SUSAN |
| | HEC I Gas | | |
| | December, 2000 I Accounting | | |
| | Printer: Accounting Printer | | |
| <div> <div>PERSONAL</div> <div>PRICE INDEX</div> <div>COMPANY</div> <div>AVAILABILITY</div> <div>DEALS</div> <div>ROUTING</div> <div>ACCOUNTING</div> <div>SYSTEM</div> </div> | | | |
| <div> <div>  Setup Users...  Setup System Functions...  Update User Security Rules... </div> <div>  Security  Management Reports...  System Reports...  Standard Report Types... </div> <div>  Help...  About the Energy Management System... </div> </div> | | | |
| <div> <div>  Monthly Status...  Monthly Status Exception Reason Codes...  Producer Control Center Messages...  Locations...  Processing Code Types...  Printers...  Application Images... </div> <div>  Security  Management Reports...  System Reports...  Standard Report Types... </div> <div>  Help...  About the Energy Management System... </div> </div> | | | |
| <div> <div>Start</div> <div>Energy Management...</div> <div>1:00 PM</div> </div> | | | |

6036660

WASP Calculation Diagram (1 of 2)

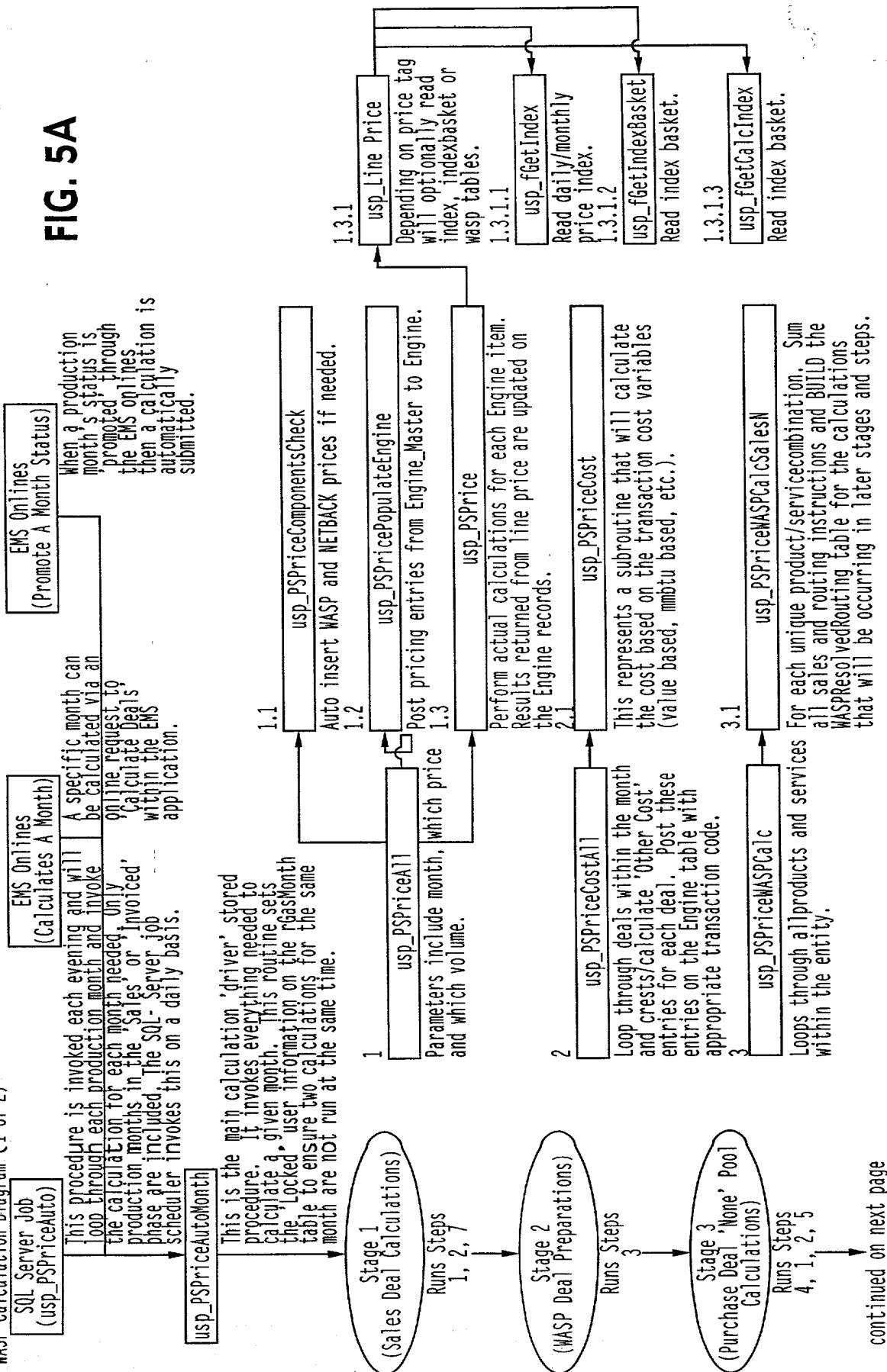
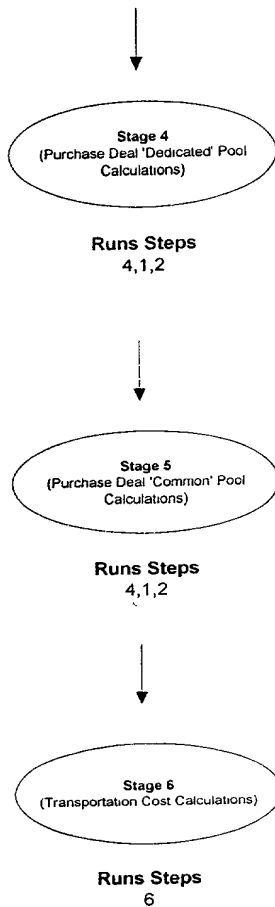


FIG. 5A

WASP Calculation Diagram (2 of 2)

continued from previous page



4

usp_PSPPriceWaspCalcResolveDriver

This procedure will loop through each product and service and invoke the resolve routines for each unique combination

4.1

usp_PSPPriceWaspCalcResolveN

This procedure invokes the iterative process which loops back from all the sales points to originating purchase points

4.1.1

usp_PSPPriceWaspCalcResolveSalesN

HIGHLY ITERATIVE process that attempts to track all sales meters back to original purchase meters. The WASPResolvedRouting table is the primary table utilized here

5

usp_PSPPriceWASPDriveOutProceedsN

Move any of the financial proceeds that were overridden to their respective deal OR WASP meters. This takes the profit or (loss) and makes the adjustments. Only 3rd party deals can have their proceeds 'divided'. The primary table updated through this process is the WASPResolvedRouting table

6

usp_PSPPriceTransportAll

This routine will create all of the GasInv 'PriceType=3' inventory records and associated Engine (calculated) results. These system generated transport costs include transport, gathering, fuel and pwr

7

usp_PSPPriceAnyNewInvoicesNeeded

This routine only gets executed if the production month status is set to 'Invoiced'. This routine will ensure that an invoice number gets assigned if no number currently exists (for new sales entries introduced during the actualization phase)

FIG. 5B